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ORIGINAL ARTICLES.

REMARKS ON CANCER OF THE PROSTATE AND THE SELECTION OF CASES FOR SUPRAPUBIC PROSTATECTOMY.

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I propose offering a few remarks on the subject of prostatectomy, and will commence by mentioning a case which may be regarded as a typical one of its kind.

Sixteen months have now elapsed since the operation on this case, during which period he has been actively employed earning his living. Thus you may judge as to the permanent results which we may hope to obtain in well-selected cases after this operation. The patient at the time of operation was sixty-seven years of age. He has been under my notice since 1899, when I performed vasectomy for him for enlargement of the prostate. At this time the enlargement had made considerable advance; he was entirely dependent on the catheter and had been so for some time, and this greatly interfered with his work as a compositor and seriously injured his health by preventing him having more continuous sleep and rest. The case proved too far advanced for vasectomy, and the relief he obtained from this operation was insufficient.

On February 5, 1902, after examining his prostate and bladder with the cystoscope, I performed suprapubic cystotomy for him, and enucleated with my finger two large lateral masses with the prostatic urethra between them. The total weight was five ounces. The patient made an uninterrupted recovery; the function of the bladder has been completely restored and the use of the catheter discarded since the day the operation was performed. As to its selection and results, this case will serve as a text upon which I may base a few remarks on the subject of prostatectomy generally. If the conditions could always be secured as they existed in this instance, the operation of prostatectomy would be attended with very little risk, whilst the results would be uniformly good. In the study of the various forms and structures the enlarged prostate presents will be found the key to the application of operative surgery to this part.

The first question I would raise is relative to malignant disease of the prostate. Is it common or not? and what should be our attitude toward it? My belief is that carcinoma of the prostate is far more common than we have been led to think. In performing over one hundred vasectomies on different persons for enlargement of the prostate, the operation failed to benefit the patient in several instances for the reason that the growth proved to be carcinomatous.

And this leads me to consider how we are to recognize this state and thus to avoid attempting useless prostatectomies. In the early stage there is consid-

erable difficulty in doing this. Carcinoma of the prostate is not infrequently met with in younger persons than in the ordinary forms of prostatic enlargement or adenoma. Cancer of the prostate may occur at or about the age of fifty, and in this respect corresponds with carcinoma of the female breast. It is usually associated with considerable lumbar and sciatic pains. Later on it involves more or less of the chain of glands in the groin, including the femoral, which it indurates. Examination by the rectum not only finds the gland of stony hardness, but of marked fixidity on pressure. Slight hemorrhages are occasional, but serious alterations in the character of the urine and obstruction to catheterism are often delayed. Loss of flesh is usually noted. These are the ordinary symptoms of carcinoma of the prostate.

In several instances I have seen, where the diagnosis was verified by microscopical examination, the disease was marked by slow progress and the slightness of the local symptoms that were present throughout. It appeared to prove fatal by the general decay that was induced, rather than by any interference it occasioned with the function of micturition, thus contrasting with advancing forms of ordinary prostatic hypertrophy.

On the other hand, the adenomatous prostate, which often assumes considerable dimensions and is best suited for treatment by prostatectomy, presents very different local conditions. When examined by the finger in the rectum, there is a feeling of less fixidity about it relative to the pelvis. The bowel is freely movable over it. Though firm and bossy to the touch, it is wanting in that feeling of stony hardness which is so characteristic of the carcinomatous prostate.

Where an operation is contemplated, no examination for the purpose of diagnosis can be considered complete without the use of the electric cystoscope. Upon this often turns whether a prostatectomy should be undertaken at all, or whether the case permits of the substitution of a more limited proceeding, as will be illustrated later on. As viewed by the cystoscope, the differences between hypertrophy and carcinoma may thus be stated.

Carcinoma of the prostate, in by far the greater proportion of cases, is of a hard and slow-growing nature, closely resembling scirrhus of the breast, both microscopically and to the naked eye. As a rule, there is not very much intravesical projection of the prostate in these cases, and what there is, is of an uneven and irregular outline. On the other hand, the large, soft, adenomatous prostate presents as a rule a considerable enlargement into the bladder cavity, with a smooth rounded surface. The most general arrangement of these adenomatous masses are these:

1. As a collar-like general enlargement of the prostatic ring encircling the prostatic portion of the urethra.

2. As an enlargement of the two lateral lobes squeezing and flattening the urethra from side to side, the greatest diameter of that passage thus becoming vertical.

3. An enlargement of the posterior or middle lobe, either as a sessile rounded swelling under the mucous membrane of the apex of the trigone, or with a thick pedicle closely resembling a fibro-papilloma in appearance.

4. Or, there may be a combination of any or all of the preceding varieties.

It is thus obvious that the cystoscopic appearance of the adenomatous prostate varies much, according to the direction of the growth. Usually the contour

can be made out fairly accurately, and the observer can say that he has to deal with a lateral lobe enlargement, a collar-like enlargement with projecting middle lobe, or an enlargement mainly of a pedunculated nature. The importance of this is obvious, for in the last mentioned case a simple twisting off of the pedunculated middle lobe would be sufficient to relieve all symptoms, and is a less serious procedure than removing the whole of the enlarged gland. It should also be noted that the mucous membrane covering the large adenomatous masses is often of a peculiarly glistening character, and sometimes presents little cyst-like swellings, which, when viewed in profile, are semi-translucent. I have not observed this appearance in cases which eventually turned out to be carcinoma.

I am laying considerable stress on the importance of recognizing carcinoma or cancer of the prostate when it is the cause of the enlargement and distinguishing it from ordinary hypertrophy or adenoma, for the reason that it may be little short of a calamity to submit a person to a prostatectomy should the enlargement eventually turn out to be of a malignant nature without the surgeon knowing it. Formerly it was not a matter of so much importance, when the catheter and the irrigating syringe represented the mechanisms commonly employed in the treatment of prostatic obstruction, for to this extent malignant and non-malignant growths might be treated on almost identical lines. At the present time these conditions are changed, and now that the prostate is approached operatively, much on the same principle as the breast and other organs of the body, it is of the first importance that we should recognize beforehand the precise nature of the enlargement we have to deal with.

I have within the last two years practiced prostatectomy in two cases which speedily proved to be carcinomatous. I think such instances should not pass without notice in relation to the subject I am now dealing with, and I will, therefore, briefly give some particulars and show what was removed.

The first case was that of a patient aged sixty-four, whom I saw in 1901. He complained of frequency of micturition both by day and night, and occasionally involuntary dribbling. A catheter had been passed before I saw him, but there was no residual urine. It was, therefore, clear that the frequency of micturition was not due to retained urine, but to some other cause of irritation. The patient's history pointed to previous attacks of renal colic, for which he had been under treatment at Carlsbad. The last attack of renal colic was two and a half years before I saw him. He had passed uric acid gravel in the urine, but not stone. Examination by the rectum showed the prostate to be extremely hard, particularly at one point, where it gave the sensation as if a stone was impacted there. Further, the patient complained of dull aching about the buttocks and thighs. The muscles were flabby, and he was losing flesh. Frequency of micturition disturbed his rest and distressed him both by day and night. As there was no residual urine to draw off, the catheter was useless so far as this symptom was concerned.

Later on some difficulty arising out of the increasing size and hardness of the prostate occurred, and the use of the catheter then became necessary. Occasionally a few drops of blood were passed. I was not able at that time to detect any enlarged glands, either in the groins or femoral regions. The patient became very anxious about his condition, and, having heard of cases where the

prostate had been successfully removed, he was desirous, other measures failing, of submitting to this operation.

I gave it as my opinion that the case was an unfavorable one for prostatectomy, as it was not unlikely the growth would recur, and there was no guarantee that the whole of the disease could be removed, as is the case with adenomas involving this part.

On the other hand, the patient urged the pain and frequency which attended the introduction of the catheter and the uselessness of all the means that had hitherto been employed to relieve him. I could not absolutely deny the possibility of the growth proving to be one of those densely fibrous prostates which are occasionally met with, but in my judgment the weight of evidence was against this.

However, at the request of the patient, an attempt was made to extirpate the gland by the suprapubic route. I felt to some extent justified in doing this, for the reason that it was evident no long time could elapse before it would be necessary to open the bladder for the purpose of allowing the urine to escape. The prostatic urethra was rapidly becoming blocked up by the invading growth, and catheterism would soon be impossible. Prostatectomy was, therefore, performed in February, 1902, four months after the patient had been under my observation. The prostatic mass could not be enucleated entire with the finger, and had to be removed in several portions in this way.

The progress of the case was disappointing. Though the patient received immediate relief by the freedom with which the urine escaped by the open wound and he got rid of the distress connected with catheterism practiced under great difficulty, the growth within three or four weeks of the operation returned in the original site. It then became necessary to fit a permanent drain pipe in the suprapubic opening which enabled the patient to pass urine painlessly during the remainder of his life. The prostatectomy, however, proved useless and the patient died from the recurrence of cancer in the part four months after the operation which had been undertaken for its removal. Secondary growth manifested itself in the spine about the ninth and tenth dorsal vertebræ. On microscopical examination the growth proved to be of a mixed character. The periphery of the mass was adenomatous whilst the center was carcinomatous. The growth cut like scirrhus of the breast and yielded typical "cancer juice" on scraping. Mr. Watson Cheyne saw the patient in consultation with me.

The second case was that of a professional man, aged 61, who consulted me in April, 1901, for frequency of micturition. As in the preceding case, the use of a catheter indicated that there was no residual urine in the bladder to account for this symptom and that some other cause for it was to be sought. The prostate was examined per rectum and it was found to be large and hard. It was noted, however, that the rectum was freely movable over it and that the growth was not unduly fixed within the pelvis. I did not see the patient again till January, 1902, when the symptoms had become more urgent. The frequency of micturition had greatly increased and with this a necessity for the use of the catheter.

These symptoms were so urgent that on January 5th, suprapubic prostatectomy was performed. What was apparently a fibro-adenoma of the prostate was enucleated with some difficulty in two pieces by the finger. The bladder had evidently for some time been immensely distended. The mouths of the

ureteral orifices were so large that they would each admit the tip of the forefinger. The naked eye appearance of the growth was that of an adenoma which the first microscopical examination supported. A further examination which included a complete section of the mass removed, unmistakably indicated its carcinomatous nature, as in the previous case.

Early in April, 1892, this patient sailed for the cape in a professional capacity, apparently in excellent health, and passing urine quite naturally. About four months after operation he had one or two slight attacks of haematuria which were evidently connected with recurrence at the original site. He was able, however, to complete two more voyages out and home when he returned to this country with the abdominal cicatrix and contiguous glands largely involved in carcinoma and with the scrotum and legs much edematous. This has all taken place within the course of sixteen months.

During the last few months my attention has been called to several instances of prostatic enlargement which should be included with those I have just mentioned. They are not cases which should be submitted to prostatectomy. At all events, the prospect of recurrence should have full consideration.

But though a deliberate prostatectomy may not be advisable in cases of this kind, there can be no doubt that carcinoma of the prostate often sooner or later leads to conditions where operative interference is called for—I refer more particularly to the effects of obstruction so caused upon the contents of the bladder. A suprapubic opening may give immense relief to the patient whose bladder is distended with clots or foul urine. This is a substitute for a catheter which may be advantageously utilized.

I would like to say a few words in reference to some modern developments relative to the treatment of certain inoperable forms of prostatic obstruction. I refer to those instances where the enlargement is presumably of a cancerous nature. It is a painful thing for a surgeon to say to a patient, "I cannot advise the removal of your enlarged prostate for the reason that it is probably malignant." "Is there nothing you can offer?" is probably the rejoinder to this. Within the last few months attention has been directed to the use of the Roentgen rays and high frequency currents in some of these inoperable cases of prostatic carcinoma to which I am referring. This is ground upon which I would tread with much caution. Interest was first drawn to this subject by some useful papers on the X-rays and the Finsen light in connection with the treatment of lupus and other semi-malignant forms of ulceration. At the present time I have two cases of malignant disease of the prostate, or what I take to be such, under daily treatment by means of these agencies. In alleviating pain and in apparently influencing the further development of these growths, as judged by the patient's sensations, physical condition, and examination of the part with the finger, I am favorably impressed by what I have seen. The process is a painless one, and will be continued on the ground that it appears to have contributed to the comfort of the patients. It seems impossible that so powerful an agency can be brought in contact even momentarily with living tissues without influencing their nutrition. Whether for good or evil, or for neither, in instances such as these has yet to be determined. I think, however, from what I have seen, it is worth a trial—and this it is having.

To Revert: I opened these remarks by illustrating what may be regarded as the total enucleation of the contents of the prostatic capsule. I will now consider some cases where partial prostatectomy may be substituted.

If we study a number of specimens of enlarged prostates, we shall find in a certain proportion that the obstruction is occasioned by a limited portion of the gland which has become hypertrophied or excessive. The most common form of this variety is where the floor of the gland becomes pendulous and by blocking micturition renders the natural escape of urine as impossible as if the orifice of the bladder were commanded by what is known in mechanics as a ball valve. In all other respects these prostates are naturally disposed.

Let me illustrate what I mean by a case.

In April, 1899, I saw a gentleman aged fifty-five, at the request of Sir Douglas Powell, who was suffering from stone in the bladder. I performed litholapaxy upon him and removed a stone composed of oxalates and phosphates weighing over half an ounce. I should mention that he had been using his catheter for twelve months and had been absolutely dependent upon it for three weeks before the operation. The patient made a rapid recovery from the operation, though he was never able to dispense with the use of the catheter afterwards.

In August of the same year the operation of litholapaxy had to be repeated, as in this short interval another stone had formed which was also successfully removed in the same way. On this occasion the stone was formed of phosphates which is the usual kind in the case of recurrences. Again he made a speedy recovery so far as the removal of the stone was concerned. The patient, however, still remained dependent on the use of the catheter. By September, 1900, he had formed other stones which were removed in a like manner. He still remained dependent on the use of the catheter. For the fourth time, in February, 1901, he again applied to me with symptoms of stone. Feeling sure that this rapid recurrence of stone was not due to any fault in the operation or to any want of care on the part of the patient or his medical attendant, before proceeding to remove the stones I examined the patient with the cystoscope.

The view thus obtained of the interior of the bladder was extremely interesting. There was no enlargement of the lateral lobes of the prostate, but the third or middle lobe was prolonged and took the form of a pendulous mass which projected upwards into the bladder, and evidently played the part of a ball valve. Thus the urine was mechanically prevented escaping from the bladder, except when the catheter was used, and being allowed to decompose, the formation of phosphatic stones necessarily followed. I should add that under cover of the projecting lobe of prostate a portion of two calculi were seen by the cystoscope. This condition at once explained how these stones were formed, and I decided upon removing that portion of the prostate which was hypertrophied as well as the stones it partially concealed. It seemed to me unnecessary to remove the entire prostate, and I therefore advised the minor operation.

This was done by opening the membranous portion of the urethra on a grooved staff, as if for median lithotomy, which enabled me to pass a pair of forceps into the bladder. Thus I seized and twisted off the polypoid excrescence of prostate. Subsequently I withdrew two calculi and introduced a temporary perineal drainage tube into the bladder. In a few days the tube was withdrawn, when the wound rapidly closed.

It is now over two years since this operation was done, the patient has had no further recurrence of stone, and what is also of great importance, he has never had occasion to use the catheter since, though he had been dependent upon

this instrument for so many years previously. It was clear in this case that the partial enlargement of the prostate which I have described was the direct cause of the recurrence of stone from which this patient suffered for so many years. Further, this case illustrates the great assistance the cystoscope affords in all cases of this kind. It showed how limited the prostatic enlargement was and how this could be removed by a very simple operation. The days are now past when the cystoscope was regarded as a toy. Every one who desires to obtain a practical knowledge of the disorders affecting the urinary tract, must make himself acquainted with it if he desires to diagnose and treat correctly the disorders of this part.

Partial operations on the prostate should be limited to such conditions as I have just illustrated. They are not to be recommended when the entire organ is more or less involved in an hypertrophy. Two instances have recently come under my attention where no permanent good followed suprapubic cystotomy and the removal of some portions of the enlargement. In one the suprapubic opening never closed, as the urine failed to escape by the natural channel, whilst in the other, though the suprapubic wound healed by the aid of a retained catheter, the patient could never dispense with the latter instrument. In the latter case I advised that an attempt should be made later on to rectify this by a more complete enucleation of the prostate that remained. This, I heard, was followed by a satisfactory result, the patient, within a month after the revised operation, obtaining full voluntary power over the act of micturition, besides other advantages.

There is another point to which I will refer in connection with the subject of entire enucleation of the prostate as now practiced.

There can be no doubt that in the large majority of these cases the prostatic urethra is more or less damaged if not entirely removed. This is evident from the examination of specimens after removal. The question has been raised, is there not some liability of what amounts to a urethral stricture occurring after a wound of this kind? I have met with an instance where there is some evidence of this being the case. It occurred in the case a gentleman sixty-seven years of age, upon whom I operated in February, 1902. The urethra was somewhat freely separated on the anterior aspect of the prostate in front of the junction with the membranous portion. The whole canal was no doubt much toughened by the very long dependence on the catheter, and by no less than eight crushing operations for stone which had preceded the prostatectomy. Since the latter operation, this patient has had some trouble in passing urine. Sometimes a good stream passed, at others no urine could be voided until after the introduction of a bougie. A good stream then immediately followed. Apparently there was an obstruction of a valvular nature which thus caused the difficulty in urinating. It could not be called a stricture, as after the hitch was overcome just at the entrance to the bladder, a No. 14 metal bougie, English gauge, passed easily. Three months after the prostatectomy I passed a urethrotome and divided what seemed to be a fibrous band or bend at the point where the hitch occurred. This completely freed the urethra for all purposes, and the patient has since had no trouble in urinating naturally with a large stream.

RINGWORM.

By William Frick, A. M., M. D., of Kansas City, Missouri.

The disease commonly known as ringworm was supposed, until the researches of Sabouraud, about ten years ago, to be always caused by the same fungus or vegetable parasite. About 1842 or 1843, Malmsten, of Stockholm, Sweden, discovered a fungus in ringworm to which he gave the name of "trichophyton tonsurans." This was taken up by the medical profession and the trichophyton fungus became the recognized cause of ringworm.

About the time of Malmsten's discovery, Gruby, in a communication to the "Academy of Sciences," of Paris, described a variety of fungus found on the scalp and causing bald spots to appear. He designated the disease "porrigo decalvans," and this term was used subsequently by Willan and Bateman synonymously with "alopecia areata." Hence it came to be thought that Gruby had discovered a fungus or several fungi in that disease. Now it is known that his series of observations were on ringworm of the scalp and the varieties of fungi were those of ringworm. One variety described by him was characterized by small spores, and to this he gave the name "microsporon audouini," which name is retained in modern medical literature and constitutes the small-spored variety of ringworm. The large-spored variety, which is now known as the "trichophyton fungus," he named "rhigophyton alopecia." This is the same variety discovered by Malmsten and retains the name given by him. The careful, painstaking and thorough observations of Sabouraud, of Paris, about ten years ago, proved conclusively that several varieties of the fungi cause the disease. It is even claimed by some authorities that there are two distinct species of these fungi. This question is still under discussion by men capable of handling it and will probably be definitely settled later. We need not discuss this subject here as it is of little practical importance in treating the disease. It is enough for us to know that the main division of this fungi is into the small-spored variety, known as the "microsporon audouini," and the large-spored variety, known as the "trichophyton megalosporon." These two varieties vary in the frequency of their occurrence. In some localities it is reported that the microsporon has not been found, while in the majority of places heard from it constitutes the greater number of cases. In this country, Charles J. White, of Boston, reports 52 per cent. of the cases in Boston of the small-spored type. G. W. Wende, of Buffalo, New York, found 89 per cent., and Corlett, of Cleveland, Ohio, 65 per cent. Colcott Fox, of London, reports between 80 and 90 per cent., while in Paris this variety constitutes 58 per cent. of the cases. In Italy and Buda-Pest this variety seems wholly unknown.

In my own work I have not been able to separate and keep a record of all cases, but have been convinced that a considerable majority of my cases are of the small-spored variety.

The clinical features of ringworm seem to vary with the variety of fungus present. The greatest preponderance of the small-spored variety is found in tinea tonsurans, or ringworm of the scalp in children. Charles J. White, in his article on "Ringworm as it Exists in Boston" (*Journal of Cutaneous and Genito-*

Urinary Diseases, January, 1899), says: "A ringworm of the scalp in a person over thirteen years of age is in all probability caused by a megalosporon." This simply means that in his experience the small-spored variety seldom attacks the adult scalp but is particularly a disease of childhood. Corlett, of Cleveland, Ohio, also says: "It is found only in early childhood, from two to fifteen years, being most common between five and seven years of age. It is almost entirely limited to the scalp." The latter writer also says that in his work in Cleveland he found 90 per cent. of the ringworms of the scalp to be of this variety, while only 65 per cent. of all cases were of this variety. I quote this because it seems about my own experience and shows that the usual ringworm of the scalp is of this variety. This is the disease we frequently see in epidemics in orphanages and schools. We may also have numerous cases coming from one source in crowded communities where children congregate and play together. It is the most contagious of all forms of ringworm. As ordinarily seen there exists one or several bald spots on the scalp. These spots vary in size from a split pea to a silver half dollar. They are round or oval. Sometimes several of these spots run together and thus form larger irregular shaped patches. The surface of these spots or patches is covered with small, grayish scales, described by White as ashen gray in color. A variable number of stumps of hairs may also be seen. Some of these are broken off even with the surface of the scalp while others are broken off a little distance above the surface. Some of these last may be seen surrounded by a small, grayish collarette, which proves on microscopic examination to be a mass of spores. When the scales are washed off we may find the surface of the patch slightly reddened but not highly inflamed.

The microsporon fungus is made up of spores and mycelium. Both the epithelium of the scalp and the hair is invaded. Under the microscope the affected hair is sometimes seen so completely covered with spores that there is scarcely an opportunity to see the mycelium. These spores are round or oval in shape and about two or three micro-millimeters in diameter. They are of rather uniform size, varying some but not much. The mycelium is made up of transparent and tortuous or branching threads with joints of varying length. The width of these threads is the same as the diameter of the spores. They lie along the hair shaft at times and (according to Corlett) give the hair the appearance of a nail eaten by rust. At other times the mycelium is found inside the hair. I have in my private collection a mounted specimen showing the hair completely covered with these spores, while from the end of the hair several threads of mycelium are seen stringing out from the interior of the hair. Both spores and mycelium extend into the hair follicle. This is important to know in treating the disease.

On other parts of the body the microsporon forms round or oval patches covered with the same grayish scales. Many, if not most, of these cases are infections from ringworm of the scalp and on the same patient. It is easy for the fungus to extend from the scalp to the neck and upper part of the body while the fingers are used by the patient to scratch the affected areas, because they do itch somewhat, and in this manner it is carried to other parts of the body.

The principal varieties of the trichophyton megalosporon, or large-spored ringworm, are the trichophyton megalosporon endothrix, which always attacks the interior of the hair, and the trichophyton megalosporon ectothrix, which is always found on the outside of the hair. Charles J. White, of Boston, says that

when trying to distinguish between these two varieties it is necessary to examine hairs of the lanugo type, since he has never seen the other type of hair affected. The spores are found in less abundance than in the small-spored variety and the mycelium is much more abundant. The spores are round or quadrangular with rounded corners. They are about five to seven micro-millimeters in diameter. The spores in these varieties seem to vary more than in the small-spored. The megalospora may attack people of any age. The endothrix variety is considered more superficial in its action. It gives rise to a large proportion of the cases of ringworm of the body and of the nails and of the beard without folliculitis. When the scalp is attacked the epidermis is first invaded. The hairs break off short near the scalp and the patches are larger and more irregular. There may be only a thinning of the hair in some of these patches, while in others the patch looks bare, like alopecia areata, but on close inspection the hair stumps can be seen.

The ectothrix variety is derived mainly from domestic animals—the horse, dog and cat being the principal ones. It is the inflammatory variety of ringworm. On the body it forms inflamed, deeply infiltrated circular patches with pustules and crusts. On the scalp it forms the inflamed, infiltrated, boggy patches with pustulation and oozing. On the bearded face it forms the cases of ringworm of the beard with folliculitis. Charles J. White found in his work in Boston the ectothrix variety is subdivided into a "superficial, scaling variety and the deep suppurating form." The latter conforms to the description just given, while the superficial form does not penetrate deeply or cause any great amount of inflammation or pustulation. In order to determine positively if one of these varieties of fungus is present in any suspected case it is necessary to use the microscope. If using the Bausch & Lomb microscope, you will find the one-inch eyepiece and one-sixth objective to be sufficient to see well the spores and mycelium. Any other good microscope with magnifying diameter of 250 to 500 will do the same. Take your suspected hair and place it on a slide with enough liquor potassa to cover it, let stand for from ten minutes to half an hour according to the size of the hair. Place a cover glass over it and press it down. The liquor potassa dissolves the keratin of the hair and permits the fungus to be readily seen. If the suspected surface is on the body, take some scrapings from the edge of the patch. Place this on a slide with liquor potassa. This need not be subjected to the action of the liquor potassa so long as a hair. Ten minutes will generally be sufficient. Place a cover glass over it and press down. If permanent mounts are desired a more elaborate technic will be required. This method is only intended for temporary examinations.

Ringworm is a curable disease—either on the body or on the scalp or on the bearded face. The problem is simply one of reaching and destroying the fungus causing it. It will then be easily understood that some cases are cured more easily than others, since we know some cases are more superficial than others. On the smooth surfaces of the body the disease is soon destroyed with a good antiseptic or germ destroyer, unless of the inflammatory variety when it may be necessary to use local remedies to reduce the inflammation first. In C. H. White's work he found by accident that a very small amount of formalin destroyed the cultures he was growing. This we would expect from what we know of the properties of formalin. If we could use this drug without producing pain I believe it would be the most effective of all drugs, but I have not been

able to use it on account of the pain it produces. Other remedies will destroy the growth without causing pain of any consequence and consequently are used in preference. Iodine is used effectively as the ordinary tincture; simply painting the patches with it. Dr. Geo. T. Jackson thinks iodine is more effective if the crystals are rubbed up with goose-grease and rubbed into the ringworm patches. Mecurials are used in various preparations. The bi-chloride in solution of 1 in 500 is quite effective with some. Ammoniated mercury, one-half dram to the ounce in ointment form is good, and so is the oleate of mercury, one dram of the 10 per cent. oleate to the ounce of ointment. Other forms are also used. Shoemaker is partial to the oleate of copper. I have seen it cured by brushing quickly over with pure carbolic acid and following up at once with alcohol to prevent too much destruction of tissue.

In short, any good antiseptic will be found serviceable if it can be brought in contact with the fungus. The difficulty is in bringing your remedy in contact with the fungus. It may be necessary in some cases to epilate in order to cure, but in my experience it is not frequently necessary to do this. It is frequently necessary to be persistent with the remedy used, else there will be a failure to eradicate the disease. Perseverance and attention to the principles laid down will reward the physician by a cure in nearly all if not all cases.

CANCER OF THE OMENTUM.

By James A. Matlack, M. D., of Prairie City, Illinois.

The recent extensive discussion through the columns of the Interstate Medical Journal of the question of malignant growths of the ovary, associated with similar growths of the various abdominal visceræ, prompts me to report the following case, recently under my observation:

Mrs. S., æt. sixty-three, married. Family history good; no malignant disease in any near relative. Never had any serious illness or injury, and had always enjoyed excellent health, the only infirmity being obstinate constipation of many years' standing. Up to the beginning of the present year her health had continued good. At that time her general health began to fail, and there developed a gradual swelling of the abdomen. The first physician who treated her gave her medicine for the "bloat," but assigned no definite reason therefor. I first saw her about the middle of February, at which time emaciation had progressed considerably, and marked ascites was present, but no general edema. Her general condition and appearance, with the history of rapid emaciation, immediately suggested malignant growth. There was no evidence of disease of the heart, kidneys or liver.

Paracentesis of the abdomen was performed, and about ten quarts of fluid withdrawn, an analysis of which showed it to be highly albuminous and containing blood corpuscles and large motile cells, said by some to speak for carcinoma. Palpation of the abdomen revealed nothing distinctive. Examination of the pelvis, per vaginam and rectum, revealed the presence of a rounded mass about the size of a goose egg; hard, nodulated, fixed in the pelvis, lying between the uterus and rectum, but with no apparent connection with either. A diagnosis of pelvic carcinoma was made, the supposition being that it originated

probably in the uterine appendages or perhaps in the mesentery. She was sent to a Chicago hospital. The consulting surgeon agreed with my diagnosis, but declined to operate, and she was sent back for palliative treatment. On this treatment tapping was done as often as necessary, but it soon became impossible and unnecessary because of the rapid and progressive adhesion of the mesentery, which gradually closed the peritoneal cavity from below upward. The development of this phenomenon, together with the rapid growth of a thickened and adherent mass directly under the parietes, very soon added omental carcinoma to our diagnosis, whether secondary or not being problematical. The patient gradually failed, and died in the latter part of June.

The post-mortem findings were as follows: Intestines and mesentery were matted together by adhesions and adherent to parietes. The great omentum had become a thickened mass, weighing about four pounds. Small indurated nodules were scattered through stomach wall and liver, pyloric end of stomach not involved. Uterus and rectum were normal. Between them was a cyst firmly fixed by adhesion. In the wall of the cyst were found an ovary and some small warts, which had undergone calcification. The cyst was about the size of a goose egg, and was bi-locular, one compartment containing blood and the other serum.

Specimens were submitted to a pathologist, who reported as follows: "Sections were taken from the following areas: (1) The ovary through the corpus luteum. (2) The ovary a little way from the corpus luteum. (3) Through a small papillomatous nodule in the cyst wall. (4) Through the omentum. The omentum sections show carcinoma of the papilloma type. The small warts are commonly found in the papillary cyst adenoma of the ovary. Section two shows carcinoma of the type already alluded to in omentum report. Section one shows non-malignant ovarian tissue. The histology would suggest that this carcinoma began as a papillary cyst edema in Rosenmueller's tubes in the hilum of the ovary."

This case presents certain points of interest from a diagnostic standpoint, inasmuch as the malignant growths in the various abdominal visceræ, if they existed at an early stage of the disease, were not positively discovered; and the diagnosis of carcinoma was made from the general symptoms and the presence of a pelvic tumor, which afterwards turned out to be a cyst, with only incidental malignant involvement. Where the carcinoma really began is problematical, but from all appearances it probably originated in the mesentery—the nodules in the ovary and stomach being secondary.

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EDITORIAL COMMENT.

WOLFF'S LAW.

In 1890 Wolff (1) formulated a "law" that: "Every change in the form and function of the bones, or of their function alone, is followed by certain definite changes in their internal architecture, and equally definite secondary alterations of their external conformation in accordance with mathematical laws." Previous to this the Volkman-Heuter theory of "pressure" was accepted for the development of acquired deformity, atrophy taking place where pressure was the greatest and overgrowth where it was the least, despite the adverse demonstrations of Mikulicz and Macewen.

The first corollary of Wolff's theory is that of "functional shape." (2) The external form and internal architecture are determined by function solely. The internal architecture and the external contour always correspond exactly, the latter representing mathematically simply the last curve uniting the ends of the various trajectories which make up the internal structure. "Functional pathogenesis" of deformity is the next step. Any alteration in static demands made upon the bones must be followed by proper transformations of structure, both internal and external, and as the result of these we have deformity in the narrower sense. Deformity is, therefore, to be regarded as a physiological

(1) Wolff: Gesetz d. Transform. d. Knochen, 1892.

(2) Wolff: Ueber d. Wechselbeziehungen zw. d. Form u. d. Function d. einzelnen Gebide, 1901.

adaptation of structure to pathological static requirements, therefore to pathological function.

The internal arrangement of the bone trabecular of the upper end of the femur corresponds almost exactly to Cullmann's drawing of the Fairbairn crane, a truly mathematical demonstration, which attempted to consider all of the factors entering into the demands made upon the femur.

Treiberg (3), after a careful consideration of the subject, concludes that a strictly mathematical concept of Wolff's law has not yet been justified by demonstration, as there are too many factors entering into the problem, many of which we have not as yet determined, but that, save in their mathematical aspects, the statements of Wolff's law and its corollaries may be accepted as being in agreement with observations hitherto made. Lastly, if we accept the foregoing statements of the "functional law," it does not follow that we must make use of the so-called "functional methods" in our therapeutic endeavors. They are to be chosen not from theoretical considerations only, but for reasons of expediency and practicability. Taylor in discussing this law concurs fully with Wolff, that pressure does not produce atrophy of the bone, as Lorenz has claimed, under pathologically increased or transposed burden; and also admits that functional transformation of bone must and does occur to meet the altered static demands of pressure tension and shearing strain, but he is not willing to admit that we can attribute all deformities to function alone, regardless of superimposed weight. But whether we accept this law *in toto*, there is much of truth evident, and it teaches us the importance of overcorrection in genu valgam and varum, after operation to promote bone transformations, also hyperextension in Pott's disease, and corrections of conditions such as cava vara, to strengthen weak points in the femoral neck by operation, assisted by functional conformation to meet static demands.

THE NECESSITY FOR PURE, CLEAN MILK.

In another part of this issue, in an abstract of an article on the summer diarrheas of children, there occurs the statement that improper feeding is of almost as much importance as an etiological factor in the production of these diseases, as is the actual microbic infection itself. The appalling infant mortality in our cities during the summer months still remains as one of the reproaches to our science. When we reflect that this state of affairs could be remedied in large measure, if the profession would awaken to the necessity therefor; when we remember that present conditions exist largely because of the indifference of that profession, the position becomes all the more humiliating. Recently, Bassett and Knox examined a large number of samples of milk supplied to babies suffering with summer complaint before their admission to hospital in Baltimore. This milk had an average bacterial content of over four million to 1 c.c. The New York Board of Health found in its analyses last summer many samples that ran over ten million. These are only two instances; it is not probable that the milk supply of New York and Baltimore is appreciably more contaminated than that of other large cities.

On the other hand, it has been proved repeatedly that the number of cases of summer complaint diminishes in any community in direct proportion to the

(3) Trans. Am. Orth. Assoc., 1902.

purity of the milk supply. There is still much discussion as to the relative superiority of sterilized and pasteurized milk; there can be no question that clean milk is better than either. The Milk Commission of New York, Boston, Philadelphia, Newark, etc., have shown that clean milk can be produced, sold at a reasonable price, and still be a commercially profitable product. It is high time for the profession at large to interest itself in this vitally important matter, to stimulate the laity, by a campaign of education, to a knowledge of the dangers of impure milk, and of the possibility of remedying the evil.

The present agitation concerning the prevention of this spread of tuberculosis by sanitary precautions is already beginning to bear fruit. Does it not seem that we might well bend our energies to the solution of this other problem, surely serious enough, especially since we know by a few shining examples that success will attend our efforts?

ON THE BIOLOGICAL RELATIONSHIP BETWEEN THE EPIDERMIS AND CONNECTIVE TISSUE.

Kromayer has taken a position in regard to the relationship of the epidermis and connective tissue which is revolutionary. In a paper in the *Archiv. f. Dermat. u. Syph.*, October, 1902, he states his position, namely, his belief that the basal layer of the epidermis not only produces the different layers of the epidermis, but the fibres and cells of the corium, which view if accepted would upset all the prevalent theories of pathology and embryology.

J. H. M. Macleod, of England, discusses this hypothesis of Kromayer's in the July issue of the *British Journal of Dermatology*. He says "it is impossible to treat an hypothesis such as this one without the greatest respect, however far-fetched it may seem, since it comes from the pen of so distinguished an histologist as Kromayer; still it is far from being convincing."

Unna, many years ago, evolved the idea that in certain moles and similar growths the infiltrating cells were derived from the epidermis, which view has been accepted by Gilchrist and others; among them Kromayer, who now goes so far as to claim that the cells of the corium itself is derived from the same source.

From his description of his vesicular cells it does seem to the writer that his views have been obtained from a biased source of reasoning. Yet, of course, Kromayer's work must be gone over step by step by one very familiar with perfect technique before an opinion can be expressed. No one is in a position to criticize the conclusions of such an observer as the author of these revolutionary views, except he be familiar with the various biologic and histochemic methods; therefore, it is to be hoped that Kromayer's remarkable paper will stimulate these workers to an extensive and critical review of this subject. The pioneer work of Unna in the find of selective staining has developed many revolutionary ideas in the pathology of the skin, most of which have been accepted.

It is to that master of histo-chemic technique that we are indebted for most of the great strides of the last decade in the differentiation of cells, thereby rendering the tracing of their source more possible.

Whether the views of Kromayer prove correct or not, his work displays a fine example of the study of histologic detail.

EMILE JAVAL AND "ENTRE AVEUGLES."

A pathetic interest attaches to a little book—"*Entre Aveugles*"—which has recently appeared from the pen of Dr. Emile Javal, the eminent French ophthalmic surgeon. As is generally known, Dr. Javal became suddenly totally blind, about three years ago, as the result of recurrent attacks of glaucoma. In a paper known to ophthalmologists the world over, Dr. Javal has described, in a beautifully simple and direct way, the history of his disease and the methods adopted for its relief. One who has read this "*Auto-Observation de Glaucome*" —the history of a malignant case of glaucoma utterly rebellious to every known form of treatment—cannot but look with reverence at the splendid scientific spirit of the man who, even during his moments of outrageous suffering, noted clearly the passing phases of the disease. Are we not prone to forget that such bits of knowledge can only be born of bitterest human travail? Must we not acknowledge that the silent, unflinching, dogged courage which enables a human being to ignore cruel suffering in order that the sum of human knowledge may be increased is, indeed, one of the finest things in the world? All honor, then, and reverence to Dr. Javal!

When, finally, the long struggle was over, and Dr. Javal realized that he was forever shut out from the world of light, he set about to discover how he might modify his daily life to conform to the new conditions. Much to his surprise, he was unable to find a systematic arrangement of facts bearing upon the different phases of the subject. With a view to bridging the gap, Dr. Javal has devoted his energy during the past three years toward discovering means whereby he might continue to lead an active existence. Moreover, he has sought out intelligent blind people of all countries and learned from them their devices. The results of his personal experiences and researches are embodied in a charming little book, which breathes from every page the noble spirit of a great man.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Fatal Cachexia Without a Demonstrable Anatomical Cause.—GRAWITZ (*Berliner Klinische Wochenschrift*, Nos. 25, 26, 1903).—Cases are often encountered in which the clinical symptoms and the anatomical findings do not bear the anticipated relationship to one another. Such is the case in two cases reported by the writer. The first one was a man forty-nine years of age. He had during the previous year, on account of pronounced weakness, been compelled to give up his work. This condition lasted several months, after which time it disappeared. The man was again able to resume his work for a time, when the same symptoms returned even more pronounced than at the previous time. The symptoms now were weakness, syncope and loss of appetite. Careful examination failed to reveal any condition which might explain the symptoms present. Repeated examinations, however, revealed a total anacidity. To make an exact diagnosis was impossible from the course of the disease. Neoplasm, Addison's disease and pernicious anemia were considered. The latter two, however, after careful study, could be excluded. The treatment consisted of nutritive enemata, hydrochloric acid and small doses of quinine and iron.

Post-mortem findings did not show any condition which might explain the clinical symptoms or the outcome of the disease. The general impression made by the case was one of a chronic intoxication. That it was not an ectogenic poison could easily be confirmed. The only reason which might account for an endogenic poison was an absence of hydrochloric acid in the stomach. The question arises whether or not we find a chronic poisoning with this as its etiology. Grawitz believes that two possibilities exist: first, the absence of the antibacterial power if hydrochloric acid may be the source of the poison; and, second, the state of proteid molecules, which on account of the anacidity are absorbed without reaching the physiological end-products. The writer is inclined to accept the possibility of both and thinks that an intoxication may exist as a result of a chronic anacidity. The fact that all cases of anacidity do not suffer from an intoxication, does not weaken the possibility. The second case presented symptoms very similar to the first. The stomach analysis showed an anacidity at first, but after a few days free hydrochloric acid was present. In this case attention was given chiefly to the nourishment of the patient. Nutritive enema and lavage every second day with normal salt and fluid nourishment poured through the tube. Internal administration of hydrochloric acid. With this treatment the patient improved greatly and rapidly.

The practical consequence for the treatment of these cases is clear. In such cases we must not be satisfied with the simple stomach analysis, but must at once attempt to overcome the condition existing by treatment, namely, the lavage together with the administration of hydrochloric acid. At first it is well to employ enema followed by nutritive enema. Antiseptic substances, as calomel and salol are not to be employed, as they act only in the intestines; the same result will be accomplished by large amount of fluid.

A Case of Severe Intestinal Auto-Intoxication.—STUERLY (*Berliner Klinische Wochenschrift*, No. 23, 1903).—According to the writer, it is only during recent

years that the etiological value of fermentative processes in the gastro-intestinal tract as a means of explaining severe nervous conditions has been appreciated.

This subject received special consideration at the Internal Medical Congress of 1898. At this time, those cases in which most pronounced cerebral disturbances had been observed, were given special attention. Epileptoid attacks, unconsciousness, severe headache, feeling of fear and acute psychoses had all been observed and were undoubtedly of intestinal origin. Attempts up to the present day to isolate a special toxin have given negative results. The urine shows the presence of aceto-acetic acid and acetone, which may be considered as the end-results of the fermentative processes.

The case reported showed pseudo-meningeal symptoms due to the gastric disturbance and obstipation. Of special interest was the bradycardia which existed twelve days. The patient was a boy of seventeen years. The condition started with severe colic after eating raspberry ice. A few days later, after the patient had recovered from this attack, he ate an abundance of string beans, and developed a similar attack. At the time of his admission to the hospital, which was four days after the initial attack, he was in an unconscious state and having occasional clonic convulsions. The pupils were dilated and did not react to light; the urine showed the presence of albumin and indican, but no aceto-acetic acid or acetone. Conditions continued thus until the seventh day, when calomel and high rectal injections were employed. From this time the patient continued to improve and ultimately recovered. The writer thinks there is no doubt that the gastro-intestinal disturbance was the prime cause of the cerebral symptoms.

The Becquerel Ray and Its Physiologic-Pathologic Significance. — LONDON (*Berliner Klinische Wochenschrift*) carried out experiments with the above rays, utilizing thirty milligrams of radium bromide enclosed in a gutta-percha and metal box.

Ordinarily if a piece of sealing-wax is rapidly rubbed over flannel it will pick up a thin piece of paper. If it is passed over the radium box after being rubbed it will no longer pick up the paper.

Radium will kill small animals at some distance. Mice were used in these experiments. Three or four mice were placed in small, glass cages; on top of the one the radium box was placed, while the control animals were placed in a similar cage near by, kept under similar conditions but not in contact with the radium box. Those exposed to radium rays showed signs of sickness on the third day and died on the fourth or fifth. As soon as the first signs of sickness appeared the box of radium was removed. The first signs of disease manifested themselves in redness of the ears, blinking, state of sleepiness, disinclination to eat, weakness, irritability of the muscles, etc. Finally the breathing became very slow, the animal became comatose and died. Many of the organs showed pathological changes.

The influence of radium upon the blind was quite positive. Those whose eyes were very slightly sensitive to light, became quite sensitive when the radium was placed near the eyes, even in day-light.

Some, whose eyes took cognizance of light and light shadows, but could not detect objects, readily recognized objects when placed upon a screen lighted by radium rays.

With the aid of radium it is possible to make microscopic examinations in a dark room. One needs only to light up the field of vision with a screen.

If examined under the microscope, powdered radium appears as small illuminating bodies upon a black background.

A New Symptom of Rachitis.—NEURATH (*Wiener Klinische Wochenschrift*, No. 23, 1903) describes a symptom of rachitis which he has observed in a large number of cases. It consists in a peculiar formation of the joints of the fingers,

which results in a characteristic contour of the fingers. There is a spindle-shaped thickening of the phalanges at the middle portion, while the ends are of normal size. The dorsal sides are more prominent than the volar. The profile view of the hand shows the enlargements to the best advantage.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

Adrenalin and Local Anesthesia.—HONIGMANN (*Centralblatt fuer Chirurgie*, No. 25, 1903).—The author has found it a good plan to inject a mixture of cocain and adrenalin chloride; securing in this way a local anesthesia which is said to extend far beyond the region of the infiltration as well as one which inhibits sensory stimuli passing through nerves which happen to lie in or run through the infiltrated area. He has three different solutions which are graduated in strength to suit the occasion of their use. It may be said in general that a 1 per cent. solution of cocain should contain from one to five drops of the adrenalin chloride to the ccm. The anesthesia is more complete and lasts longer than does that which results from a simple solution of the older kinds. In addition it may be said that the wounds are almost bloodless after this treatment, and in addition there is no such thing as post-operative hemorrhage. While this cannot be said to be of such a degree as to take the place of the Esmarch bandage, still this new mixture is of especial avail in situations where it is impractical or impossible to use the elastic ligature or bandage. Again it can be said that the unpleasant edema which results from a simple local anesthetic is completely done away with by this new method, so, of course, the advantage to the operator is manifest. The poisonous effects of cocain are also lessened by this method, it is claimed.

Permanent Results of the Gritti Amputation.—MERIEL (*Archives Provinciales de Chirurgie*, July, 1903).—The case in point was seen three years after the operation and to the author's way of thinking beautifully illustrates the advantages which this method possesses over the ordinary methods of taking off a leg at the same height. The operation had been occasioned by a recurring tumor on the lower leg, and the patella had been sewn to the femur by four silver wires. When last seen, the patient presented a stump which was by no means sensitive, but which was on the contrary highly useful and could be flexed like a normal leg, something which can surely not be said of the usual stump. In addition it may be said that the amount of muscular atrophy is for this very reason much less than that usually observed after the ordinary amputations.

Surgery of the Pancreas.—MIKULICZ (*Annals of Surgery*, July, 1903).—This splendid article was read at the recent Washington Congress by the man whose admirers claim for him the title so long held by Kocher of being the world's foremost surgeon. The surgery of the pancreas is the most incomplete of all that pertains to the abdomen. The position of the organ as well as the technical difficulties of an operation upon it account for this fact, to say nothing of the impossibility of making a positive diagnosis of its affections. Trans-peritoneal and retroperitoneal methods have been advocated for reaching the organ, the former being in most instances the better. In this field it is that the explorative laparotomy finds its greatest value, still the dangers surrounding an attack upon the pancreas must always be kept in mind. These are chiefly due to the ill

effects of escaping secretion upon surrounding tissues and hemorrhage. Wherever pancreatic fluid can escape, it is absolutely essential that the wound be tamponed and not closed up, else the patient will die. In no injury to the upper abdomen is the same to be closed until the pancreas has been well explored, no matter what may have been the condition of other organs. The organ may become diseased by reason of backing up of bile, etc., after plugging up of the ampulla of Vater; and where there is an acute inflammation of the gland, it is not enough that the belly be drained, the pancreas itself must be treated in like manner. The author covers the entire field in his paper, which consists of practically a small text-book on the subject.

A Case of Chronic Intussusception Which Healed Spontaneously by Expulsion of the Necrotic Intussusceptum.—HOLLMANN (*St. Petersburger Med. Wochenschrift*, No. 15, 1903).—According to various authors, there is decidedly less danger from this affection when the intussusceptum is thrown off; the figures of the different writers do not by any means agree, however. Some say that twice as many get well; others, that twelve times as many get well after nature has asserted herself in this way. The history of the reported case is certainly interesting. The patient, a man aged forty-nine, suffered for months with tenesmus and a desire to defecate, but was not wholly able to satisfy the desire because something seemed to plug up his rectum. There was discovered, upon digital examination, a crater-like mass within the rectum, this feeling somewhat like a greatly enlarged and thickened cervix uteri. After a tube was introduced through this "crater" and a large amount of water injected, the mass disappeared and the patient was enabled to move the bowels freely. After several recurrences of this kind the man passed a large mass of gangrenous material, which could be identified as a portion, several inches long, out of the continuity of the intestine. Two months later he visited the hospital, and was found to be in perfect health. The specimen was found to be a portion of the ascending colon into which a small portion of the ilium was invaginated. It is worthy of especial note that the patient affected in this manner and who recovered at the age of forty-nine, certainly presented a very rare occurrence.

The Operative Indications in Hemorrhage from Ulcer of the Stomach.—MATHIEU and ROUX (*Gazette des Hopitaux*, No. 48, 1903).—It seems to the authors logical, as a general proposition, to direct attention to the bleeding vessel, where this is possible. The affection must be divided into three classes: (*a*) acute profuse hemorrhage which cannot be stopped by medical means; (*b*) recurring slight chronic hemorrhage; (*c*) acute abundant hemorrhage which is easily stopped by medical means, but which recurs soon. In the first variety the surgeon has usually been unable to find the ulcer, hence the operative treatment of these desperate patients has been far from satisfactory. One can call surgical treatment justified in such cases only when the ulcer can be excised or the vessel ligated. Then there can be nothing done when the ulcer has invaded the tissues of the pancreas. It is in the second class of patients, with their gradually increasing anemia, that surgery does the most good. We are certain of curing an ulcer located near the pylorus by a gastro-enterostomy, but we can not be sure as yet of the result obtained in cases where the ulcer is situated to the left of the median line of the stomach. In the third class of patients an operation is always of avail if there be gastric stasis (gastro-enterostomy), though there may be a recurrence of the hemorrhage in other cases unless the ulcer be excised. The author draws the general conclusions that the cases with acute, abundant bleeding had better be trusted to internal medication for the time being, but that stenosis and ulcer at the pylorus offer, in general, a thankful and certain field for gastro-enterostomy.

Enteroanastomosis in the Treatment of Stricture and Stenosis of the Intestine.—PRUTZ (*Archiv fuer Klinische Chirurgie*, Band lxx, Heft 1).—This article is from the celebrated v. Eiselsberg clinic, where so much good intestinal work has been done, consequently it is of undoubted value. Twenty-two cases were treated in the way above mentioned, so the experience of the surgeon has been sufficient to warrant the drawing of conclusions. Twelve of these were cancer and six tuberculosis cases. In ten of the patients there was a complete closure and in twelve a stenosis. Where the motor power of the bowel has suffered greatly it is considered far better to make a fistula, and especially is this the case where there is any great amount of contents. However, if the new condition must be permanent, then it is far better to make an anastomosis if this be possible, since the other operation condemns the patient to a miserable existence. Just what is to be done, can, however, be determined only after the abdomen is open, in far the greater number of cases. It is an interesting observation that an anastomosis between ileum and sigmoid leads to incomplete solidification of the feces, consequently these patients have a number of thin stools every day, though the general health need not suffer thereby. In one case, indeed, the duodenum was united with the transverse colon without serious consequences, the patient dying of a lung affection a few weeks later. In some cases the contents did not take the desired direction through a new side-to-side opening, hence it was thought best in other cases to divide the gut squarely and to implant the proximal end into the side of the distal gut far below the diseased area.

Perforation of the Rectal Wall Which is Made While Doing a Hysterectomy and Cannot Be Sutured. Its Treatment.—CHAPUT (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, Tome xxix, No. 22).—On account of the depth of this viscus, or further on account of the condition of the wall of the viscus, it is usually impossible to suture the defect. This meant formerly one of two things, either a resection of the rectum or an artificial anus. The latter is surely undesirable and the former is usually impossible on account of the patient's condition after removing the uterus. The author's plan after such an accident is to bring the peritoneal flap like a tent across the pelvis and attach it to the posterior wall and to the rectum above the new opening. In this way the abdomen is shut off from the contaminated area and the escaping feces are allowed to find their way out through the vault of the vagina, which should be left open for the purpose. It is astonishing how promptly such a fistula will close of its own accord, and how little annoyance it causes the patient.

The author relates two such instances, and in both the peritoneum remained free from inflammation and the fistula closed in a matter of a few days only.

Further Experience With the Vertical Overlapping Operation for the Radical Cure of Umbilical Hernia.—MAYO (*Journal of the American Med. Ass.*, July 25, 1903).—This beautifully illustrated article calls attention to the exceptional results which the Mayos have attained by the use of a comparatively simple procedure. Instead of attempting to unite the edges of an existing defect by bringing its edges together laterally, they do just the opposite, that is, overlap them from above downward. It is not the idea to make much use of the attenuated muscles, but most of the strain is placed upon the aponeurosis or its extension, the anterior rectus sheath. In all sorts of relaxed abdomens there takes place a vertical lengthening of the anterior abdominal wall, a circumstance which is turned to account in this operation. The operation has been performed thirty-five times since 1895 and in all of these cases there has been but one recurrence. The author makes a point of not forcing into the abdominal cavity any viscus "which has lost its right of habitation," that is, he cuts off protruding omentum, or if it be gut which is out, he removes some of the omentum inside, and thus

makes room for the return of the gut which may be said to have no further "right of habitation."

The technique is given in full, but for details as to this the original must be seen.

A Fistula Between Bladder and Colon Cured by Operation.—HEPNER (*Beitraege zur Klinischen Chirurgie*, xxxviii Bd., 3te Hft.).—Since most of these cases are caused by malignant tumors that are inoperable long before the fistula makes its appearance, the prognosis may be said in general to be a very bad one. The patient when she entered the hospital had suffered for fourteen months from a most serious disturbance of the bladder and rectum. There was an intense cystitis and feces were emitted through the urethra. After ten days in bed it was possible to discover, with the cystoscope, an opening in the posterior wall of the bladder, and at the operation the bladder was seen to be attached to the sigmoid just above the point where it goes over into the rectum. After crushing the connecting tissues between two forceps they were divided and the ordinary suture made. Everything healed promptly and the symptoms rapidly disappeared, as might be expected. The explanation of this new connection is that an acquired diverticulum in the wall of the sigmoid resulted from constipation, and that this ulcerated through into the bladder. It is well known that such diverticula do commence at the points where the vessels penetrate the muscularis of the sigmoid, under high tension as in constipation, and that ulceration occurs at the most dependent portion as a result of fecal accumulation. Then the mechanics of fistula formation is the same as where an appendiceal concretion passes into the bladder, or a gall stone into another hollow viscus.

Splenectomy for Malarial Enlargement.—GOINARD (*Archives Provinciales de Chirurgie*, July, 1903).—The immense spleen, which weighed 2600 grams after the blood had run out, was removed from a girl of sixteen. Before the operation she had looked much like a pregnant woman at full term. The author's expectations were fulfilled by the operation, inasmuch as the patient is again in perfect health and, after four months, shows no further deformity at all. There were no adhesions, and some of the veins were as thick as a man's finger, but it was possible to ligate them singly; then, after a mass ligature had been thrown around the pedicle, the organ was removed without more hemorrhage than the usual amount of blood contained in an organ of the size concerned. Though the after-recovery was in most respects uneventful, there was one rise of temperature which persisted for forty-eight hours, and is interesting chiefly for the reason that it was most likely due to a malarial exacerbation due to the handling of the diseased spleen.

A Review of 303 Operations Upon the Stomach and First Portion of the Duodenum.—W. J. MAYO (*Annals of Surgery*, July, 1903).—A decided preference is given gastro-enterostomy over any form of stomach exploration with a possible excision of the ulcer in view. The logical reasons for this course are that the latter procedure is at the same time unsatisfactory and dangerous. In sixty per cent. of the author's malignant cases there was a history of gastric ulcer—surely a good argument for the surgery which will prevent this form of degeneration. Of all the patients, one hundred and nine were afflicted with cancer, a disease which in the future must be recognized by clinical, rather than by laboratory methods, if radical treatment is to be secured. Early exploratory incision is the hope of the future. Of the twenty-seven cases treated radically, but six died from the operation; surely a good record; it may be said, in addition, that the ultimate results have been almost equally gratifying. The technique is given in full. The paper is rich in valuable conclusions and surgical hints

which were suggested by the author's rich experience, but it must be read in detail to be appreciated.

Gastro-enterostomy with Gastrostomy.—Hammesfahr (*Centralblatt fuer Chirurgie*, No. 23, 1903).—The author is of the opinion that this well-known method has not been as extensively tried as it deserves. And there may be something in the criticism, when we reflect that the tube procedure precludes the possibility of circulous vitiosus, and furthermore that the patient can be safely given nourishment as soon as the operation is completed. The tube is to be left in position for about three weeks, at the expiration of which time the fistula heals promptly. The author has done the operation twelve times and all the patients got well, nor was there any tendency to vomiting in any of them. In fact one case which had been operated in the old way had to be reoperated by the new method for the cure of vomiting.

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

A Novel Treatment for Chronic Morphinism.—C. Engelskjoen (*Centralbl. fuer die ges Therapie*, 1903, No. 6).—The writer having become addicted to the use of morphine hypodermically as the result of a long-continued and painful illness, tried all the methods known to him, in an attempt to get rid of the habit. Each attempt, however, resulted in failure; his sufferings when he attempted to abstain from a certain minimum dose, were such as to necessitate a return to the morphine. Attempts to substitute dionin or codein for the morphine met with no better success. Finally he had occasion to observe that the administration of morphine by mouth was not followed by morphinism to anything like the extent as its hypodermic use, and that the morphinism so acquired was curable with comparative ease. Accordingly he replaced his hypodermic dose by a considerably higher dose by mouth; this gave him comparatively little trouble. The amount of morphine given by mouth could then be slowly reduced without ill after-effects, and at the time of writing he asserts himself to be definitely rid of the habit.

In this connection it is of interest to note that Fromme's antimorphin, with the use of which some striking cures of morphinism were reported, has been proven to be merely a solution of morphin. As it is given per os, success following its use would seem to be the replacing of a nearly incurable hypodermic habit by a more easily curable method of administration.

The Influence of Medicaments on the Glycosuria of Diabetics.—M. Kaufmann (*Zeitschr. f. Klin. Med.*, 1903, No. 48).—In Prof. v. Noorden's clinic a large number of diabetics were tested as to the influence of various drugs upon the amount of sugar excreted by them. Opium and its derivatives diminished the glycosuria in a certain proportion of cases, especially where, after the institution of a strict diet, a slight glycosuria still remained. Considerable doses of opium are required for the production of constant results. Sodium salicylate and aspirin gave the best results, especially in mild cases. In one case 3 gm. aspirin brought about the entire disappearance of a mild glycosuria; its effect endured several days after the cessation of its administration. All the other drugs tested were found to be practically without influence upon the glycosuria.

They included bromides, corrosive sublimate, carbolic acid, salol, creosote and its allies, antipyrin, piperazin, iodine compounds, arsenic, quinine, methylen blue, yeast, diastase, liver extract, pancreas (both raw and extracted), alkalies, calcium, uranium and ammonium salts, and many more. A number of proprietary remedies were also tested and found quite without influence upon the glycosuria.

Perdynamin.—SEIFERT (*Therap. Monatshefte*, 1903, No. 1).—Seifert has used perdynamin in gynecologic practice for cases of anemia following hemorrhage (abortion, atony, myoma, etc.) with good effect. The patients made a strikingly rapid recovery and took the drug, which had no ill after-effects, with pleasure.

Yohimbin as a Local Anesthetic.—HAIKE (*Therap. der Gegenwart*, May, 1903; *Excerpta Medica*, 1903, No. 10).—In the university clinic for diseases of the ear, at the Charite, Berlin, yohimbin has been used as a local anesthetic with good results. In his first attempts the writer was limited to the use of a one per cent. solution on account of the slight solubility of the chloride of yohimbin in water. Dropped on the conjunctiva, this solution caused a complete anesthesia, accompanied by hyperemia, within ten minutes; in the nose and ear, however, the results were negative. In 30 per cent. alcohol it was possible to make a 1.5 per cent. solution of yohimbin. This produced a very complete anesthesia of the middle ear and of the tympanum, if the epithelial lining of the latter was injured; in the nose it could be used only in such cases as were not irritated by the alcohol, which often produces a distressing, burning sensation. The author finally found that boiling water would dissolve 2 per cent. of yohimbin, and would retain almost all of it on cooling. By means of this solution complete, if somewhat superficial, anesthesia of the nasal mucous membrane could be produced. Thus after its use trichloracetic acid caused no pain, whereas deep cauterization did. For many purposes, therefore, yohimbin is a substitute for the far more dangerous cocain. The absence of a local anemia such as occurs with the use of cocain, is often an advantage, as when small polyps or granulations are to be snared; where an anemia is desired it can be obtained by the simultaneous use of suprarenal extract.

As regards the technique of its use, the writer gives the following directions. The solution is best made fresh with distilled water, although it will keep for several weeks in dark bottles, especially if a drop of chloroform has been added. It acts most quickly and most intensely in a 1.5 per cent. solution in 30 per cent. alcohol, and it is so that the writer always uses it in the ear. In the nose the 2 per cent. solution should be used, although where complete anesthesia is not essential, as in the examination of the nose with probes or in the catheterization of sensitive patients, a ½–1 per cent. solution suffices. In the ear as well as in the nose the preparation is more active if painted on the epithelial lining than if merely dropped into the cavity. Three to five minutes are required for the production of anesthesia, which lasts twenty to thirty minutes. The author has never seen disagreeable symptoms following the external use of yohimbin.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

CARL FISCH, M. D.

An Experimental Investigation of Trypanosoma Lewisii.—EDWARD FRANCIS (*Hygienic Laboratory, Bulletin No. 11, Treasury Department*).—The *Bulletin* brings

a good review of all that is known in regard to the trypanosoma diseases. The text is interwoven with reports about the work done at the Hygienic Laboratory on the rat parasite; the results of the investigation add nothing new to the former work of Mesnil and Laveran. The pamphlet ought to be widely distributed, because it contains all the information we so far have obtained about this interesting class of parasites, information that in its entirety is nowhere else so easily accessible.

Der Kampf und die Immunization des Organismus gegen die Tuberculose.—E. MARAGLIANO (*Berl. Klin. Wochenschr.*, No. 25 and 26, 1903; see also *Medical News*, July 4, 1903).—Maragliano sums up in this paper the result of the work he has done untiringly for many years on the treatment of and immunization against tuberculosis. The tenor of his convictions is too well known to be discussed here. His opinion on the possibility of producing antitoxic substances by immunization of animals, substances that are protective and curative, is certainly confirmed by the results of his own experience and that of many of his countrymen in animal experimentation and in the treatment of human tuberculosis. Although the practical results have never been disputed, especially the German school has all along hesitated to discuss their theoretic correctness, mostly on the ground that it is impossible to establish the latter in a manner analogous to the investigation of diphtheria and tetanus antitoxin. Maragliano has certainly shown that there are processes going on in the infected animal organism the protective character of which can be demonstrated, although we cannot express it in an exact number of antitoxic units. Koch, himself, has approached such a view in the conclusions he has drawn from his agglutination experiments. The history of this study (and that is mainly what Maragliano's paper gives) it is not necessary to repeat here. The important part of the paper lies in the announcement that he has succeeded in establishing immunity from tuberculosis by the causation of a local tuberculous process. The material used for this purpose is not named; we only know that it is not the living bacillus. A further elucidation about this point will soon be made. He has in this way made rabbits and other animals immune against the infection with virulent bacilli and has tried his method, too, on human individuals. Although the latter experiments at the present naturally allow of no conclusive inferences, these are made with positiveness for animals. The inflammatory irritation set up by this vaccination is said not to be severe and to pass off within a few days. If Maragliano's assertions shall be confirmed and verified, he will have given to mankind one of the greatest boons we could receive. What Behring in his classic researches points out as the probable and most likely achievable solution of the tuberculosis problem, seems, after Maragliano, to be already a fact that will begin to show its beneficial influence in the near future.

Bacterium Coli as Indicator of Fecal Contamination of Water.—Z. PETRUSCHKY and H. PUSCH (*Zeitschr. fuer Hyg. u. Infect. Kr.*, vol. xliii, Heft 2).—The practical importance of routine bacteriologic water examinations has gradually been reduced to the question whether it is possible by a bacteriologic analysis to demonstrate contamination with fecal material. While it seemed for some time that the relation of the presence of the bacterium coli commune to such a contamination could be considered a stringent evidence no more, the pendulum has swung slowly around and today it is not the mere presence of this bacterium, but its relative number, that is thought to be the salient point. If the factors of dilution are considered, this way of looking at the subject appears to be the only rational one, and a water ought not to be condemned on account of the presence of the coli bacillus in a comparatively great quantity. From this point of view the authors have elaborated a very practical and satisfactory method by which

the "coli-titre" of a water (the smallest volume still containing coli bacilli) can be easily determined in a very short time. For the details of the method the paper itself must be consulted. This new procedure, for instance, permits the quick determination of the relative contamination of different portions of a water-works system, and thus gives the possibility of tracing with certainty the place of pollution. Since for the hygienic opinion on a given water only the thermophilous bacteria enter into consideration, the procedure of counting the whole number of bacteria present is of no value and ought to be insisted on only under certain circumstances. That this method, of course, does not apply to water suspected of cholera infection, goes without saying.

Researches on the Etiology of Sleeping Sickness.—A. CASTELLANI (*Journ. of Trop. Med.*, June 1, 1903; *Lancet*, June 20, 1903).—It seems that one of the most mysterious problems of tropical medicine is near its solution, or is already solved. After several bacteria, etc., had been inculpated as the etiologic factor of sleeping sickness and many other theories had been advanced, Castellani has made a systematic examination of the cerebro-spinal fluid and of the blood of thirty-four cases. In seventy per cent. of these cases he found in the cerebro-spinal fluid a trypanosoma, very nearly related to the trypan. Gambiense, first found by Dutton, and later described by Ross and others. The flagellate found in sleeping sickness differs in certain points from Dutton's parasite. In view of the different clinical symptoms produced by the latter, and furthermore from the evidence obtained from the study of the specificity of the parasites in the four or five animal trypanosomiases, it appears likely that the parasite found by Castellani is a new species. It is interesting to note that in eighty per cent. of his autopsies he isolated from the blood and organs a streptococcus, which, however, he was never able to find during the life of his patients. In contradistinction to other observers of such concomitant infections in scarlet fever and other diseases, Castellani considers this finding as an agonal invasion and is inclined to attribute the primary etiologic role to the trypanosoma. Further investigation of this interesting disease will most likely confirm his opinion.

Valeur Diagnostique des Leucocytoses.—F. BESANGON (*Gazette des Hopitaux*, 1903, June 6).—Although this article does not bring anything new and original, it must be mentioned on account of the clearness and impartiality with which the subject is treated. The discussion of the diagnostic value of the leucocyte-count often loses sight of the principal points to be considered, and is always inclined to make conclusions from single cases that seem not to fit the theory. If, however, such cases would be studied more closely, there is no doubt that such aberrations would be explained. Besancon emphasizes this fact, and also insists on the error of drawing conclusions from the blood examination alone. The paper is a very valuable guide for anyone not thoroughly acquainted with the possibilities of the method.

The Relation of Inorganic Salts to Protoplasmic Activities.—ALBERT P. MATHEWS (*Yale Medical Jour.*, June, 1903).—A comprehensive paper about the latest work done on the subject indicated by the title. Space will not permit to give more than the concise summation of the author's conclusions.

Inorganic salts are absolutely essential to protoplasmic activities, because by their dissociation in water they form an electric substratum in which protoplasmic processes go on. This substratum must be practically neutral—that is, there must be present both positive and negative particles, but these particles must be potentially equivalent. To bring about a condition of absolute neutrality there must be a mixture of salts in definite proportion, because in no salt known are the two ions exactly balanced. For this reason no single salt solution so far tried can sustain protoplasmic activity. All single solutions are poi-

sonous. Any change in this electrical substratum produced by the electric current, or by the introduction of salts of different electric efficiency, or by the action of light, produces a change in protoplasmic activity. That change is toward an increase in activity in the motor nerve at least, if the change is toward a predominant negative ion; toward a decrease in activity if toward the positive side.

Inorganic salts act upon protoplasm primarily at least by disturbing the protoplasmic equilibrium of this substratum. K Cl, Li Cl, $CaCl_2$, HCl disturb it toward the positive side; OH, NaCl and other salts of sodium toward the negative side.

By changing this equilibrium very slightly—for example, by varying the relative amounts of inorganic salts in the blood—a condition of depression or stimulation may be produced and extended over very long periods. The action of mineral waters and intravenous salt solutions depends on this principle, and we are now in a position to employ these agencies upon a scientific basis.

Physiological action of inorganic salts is an electrical action due to the changes of the ions of these salts. The physiological action of any salt is equal to the sum of the actions of its ions. Recognizing that negative and positive ions have opposite actions, we can now explain electrical stimulation and proceed to develop scientifically electro-therapeutics.

Fat-Necrosis of the Kidney.—James R. Guthrie (*Journal Amer. Med. Ass.*, July 4, 1903).—Under this name Guthrie describes a very interesting case in a woman with the symptoms of an intra-abdominal tumor. On examination it was recognized as a renal tumor and a lumbar incision was made. On splitting the capsule nearly a pint of oily fluid was discharged, while the substance of the kidney was reduced to a thin shell. The patient recovered. The examination of the fluid showed that it consisted of oil, fatty cells, together with fibrous and connective tissue. No data about the condition of the urine before the operation are given. The case is certainly unique, but why it should be called a fat-necrosis is not clear. We connect with this term an absolutely different condition, and a "liquefying" fat-necrosis is not known.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

The Digital Exploration of the Rectum in Gynecologic Practice.—Julius Neumann (*Wiener Mediz. Wochenschr.*, No. 24 and 25, 1903).—The writer emphasizes in this article the various advantages of a routine examination *per* rectum in gynecologic practice. The necessity for its employment in virgins is obvious; its preferability, however, in women soon after confinement, particularly if there are ulcerations in the vagina or on the perineum, is not duly appreciated. A rectal examination is essential in arriving at a satisfactory diagnosis as to the extent and nature of affections of the parametrium. In cases of carcinoma the earliest stages of infiltration of the parametrium can be detected. In inflammatory processes the extent of the involvement of the pelvic connective tissue can be ascertained with certainty. In cases of affections of the uterine appendages, especially if the uterus is retroflected, the rectal examination will complete the preceding vaginal exploration. In many instances the complaints of the patients, although pointing to some gynecological trouble, will be found due to a stricture of the rectum, or carcinoma or ulcerations.

The examination is made bimanually, one hand exerting counter-pressure from the abdominal wall, eventually from the vagina, if the affliction is located in the septum recto-vaginale. Just as in vaginal examination, rectal exploration requires extensive practice before satisfactory results can be expected. It should be the routine procedure in gynecologic practice.

Man's Responsibility in Sterile Marriage.—W. H. PRIOLEAU (*American Medicine*, June 20, 1903).—That the husband is more often at fault in the case of sterile marriage than the wife is easily proved. Noeggerath claimed that 80 per cent. of all men living in large cities suffer from gonorrhea, and that 90 per cent. of all sterile women are married to men who have suffered from gonorrhea either previous to or during married life. In 70 per cent. of the cases the responsibility of a sterile marriage belongs to the man, due either to azoospermia, or impotence, or because of the wife's infection with gonorrhea by her male partner. Other causes of sterility in the man due to a specific urethritis are epididymitis and stricture. Another cause of sterile marriages, and of considerable importance, is syphilis.

The most pitiable feature in this condition of affairs, in the writer's opinion, is the fact that the man seldom ever questions his own potency, but allows the woman to consider herself the cause and undergo manifold operations at the hands of gynecologists to relieve the situation. The writer believes that it is the duty of the house physician to bring about a change in these deplorable conditions. Every boy reaching the age of sixteen should be informed of the deleterious effect of gonorrhea and syphilis. No patient with venereal disease should be dismissed until there is positive evidence of a complete cure. Each patient with venereal disease should be informed of the possible result to himself and wife, if married. Every family physician should inform the parents of marriageable daughters of the seriousness of venereal diseases. State laws should be established making it a crime for a man or woman to marry while suffering from venereal disease.

When a husband of a fruitless union consults the physician, the man should be examined carefully before the woman is subjected to the ordeal.

The Responsibility of Man in Sterile Marriage.—J. BALIN (Odessa) (*Rev. in Centralbl. f. Gynaek.*, June 27, 1903).—In two hundred cases of sterile marriages the sperma was subjected to microscopical examination, if the examination of the woman did not reveal a positive cause of the sterility. The author's conclusions are: In 36.5 per cent. of the cases sterility was due to azoospermia, in 19 per cent. to oligonekrozoospermia. (Spermatozoa few in number and without active motility.—ED.) 63.3 per cent. of the azoospermic men owe this condition to gonorrhea acquired before marriage. More than half of the men were infected before marriage. The most common cause of sterility in marriage is latent or manifest gonorrhea of the husband.

(The apparent discrepancy in the figures of this author and the author of the preceding article is due to the fact that in this latter paper the cases with distinct gynecologic lesions are excluded, although they might have been due to a gonorrheal infection.—ED.)

Hundred Consecutive Cases of Myoma of the Uterus.—GUY L. HUNNER (*American Medicine*, July 11, 1903) —As has been stated by the reviewer on previous occasions, there is a marked tendency among modern gynecologists to prove that myoma of the uterus is not by any means the harmless ailment that it was considered to be by older writers.

Hunner's article is a convincing and forceful plea for a more active interference with this affliction. He analyzes the histories of a hundred patients suf-

fering from myoma of the uterus. Symptoms, complications, the various sufferings of the patients and the result of operative interference are critically reviewed. The writer does not believe in operating on every uterus containing a myoma, "but as our knowledge grows regarding the serious nature of this affliction and as our ability of doing conservative work increases, the indications for operation will expand until no good surgeon's record of one hundred cases will show that six women have been sacrificed (the mortality in Hunner's cases being six per cent.) because they waited until it was forever too late."

The Perils and Complications of Fibroids After the Menopause.—J. BLAND-SUTTON (*Lancet*, June 6, 1903).—Bland-Sutton, the well-known gynecologist of the Chelsea Hospital in London, concludes his concise and lucid paper with the following remarks: "Fibroids arise in the uterus only during menstrual life—that is from 15 to 45 years of age. As a rule they cease to grow after the menopause; after this event they may shrink. Some writers believe that they occasionally disappear, but this is very hard to prove and harder still to believe; therefore as a concession to tradition it may be described as a phenomenon about as rare as the advent of a comet. After the menopause fibroids sometimes grow, and though an unusual condition, it rests on the accurate observations of trained observers. Though a fibroid may cease to grow after the menopause it is still liable to extrusion from the uterus and gangrene with all the attendant dangers and enmity to life.

Surely there is nothing in the whole range of surgery more ironical than a woman spending twenty or even thirty years of her life as a chronic invalid on account of a uterine fibroid in the expectation that at the menopause she will be restored to health and begin a new life, and then to realize that, far from this dream being fulfilled, the fibroid becomes necrotic, extruded or septic, places her life in the gravest peril, and that she may die in spite of surgical intervention."

On Chorea in Pregnancy.—CECIL WALL and H. R. ANDREW (*Jour'l of Obst. of Brit. Emp.*, June, 1903).—This article is of considerable practical importance since it tends to disapprove the wisdom of artificial interruption of pregnancy when complicated by chorea, as is taught by most of the modern text-books. In the opinion of the authors, chorea seems to be determined by overstrain or shock, the determining cause being only effectual when it acts upon a brain whose power of control is somewhat lowered by the pregnant state, and, in addition, is unstable in consequence of (*a*) antecedent chorea, (*b*) antecedent rheumatism or other similar debilitating condition, (*c*) a defect in development. The treatment of chorea in pregnancy is that of ordinary chorea: Rest, good food, removal of eventual cause for anxiety or worry. Treatment by bromide of potassium is probably bad altogether. If a sedative is needed, chloral hydrate or chloralamid are the best. Opium is unsuitable for use in these cases. Alcohol is in some cases exceedingly useful, but should not be given if continued doses of arsenic are being administered. Of these two drugs the writers consider alcohol by far the more important. Induction of abortion or premature labor is seldom needed and frequently fails to save the patient, therefore, it need not even be considered.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

The Summer Diarrheas of Infancy.—KNOX (*Jour. A. M. A.*, July 18, 1903) contributes a most interesting paper as a resume of present knowledge on this important subject. While it appears certain that the summer diarrheas are infectious, *i. e.*, microbic in origin, it is altogether probable that the infective element is not the only causative factor. Indeed, many authorities consider improper feeding as of prime importance. The high temperature of the summer months provides the most favorable conditions for the proliferation of bacteria in food products, especially milk. The residue of undigested milk in the intestinal tract, resulting from immoderate feeding, or enfeebled absorptive power, thus forms an ideal pabulum for the growth of bacteria. Again, the fact that the disease is much more common in badly nourished, enfeebled children, living in illy ventilated quarters in unhygienic conditions, would go to show that the morbidity (indeed, also, the mortality) is directly influenced by the resistance of the patient, which in turn is dependent upon the condition of the intestinal tract.

The general trend of opinion would incline to agree with Booker's dictum, that "no single organism is found to be the specific exciter of the summer diarrheas of infants." Among the bacteria which has been isolated from the stools of infants in these diseases (in addition to the B. lactis aerogenes, the colon bacillus and the B. acidofilus, which are present in the stools of healthy infants) may be mentioned B. proteus vulgaris, B. pyocyaneus and the pyogenic cocci.

Last summer Duval and Bassett succeeded in isolating the B. dysenteriæ (Shiga) in forty-two out of fifty-three cases examined. The stools of twenty-five normal infants were examined; from none of these could the bacillus be isolated. For the details of this work reference must be had to the original communication. It is worthy of note, however, that a special agglutinating action of blood serum from these patients for this particular bacillus was established.

In no instance did normal blood agglutinate the bacilli. While it is still too early to speak of the clinical value of the test, it is apparent that it opens up an entirely new field of diagnosis, and, so, through the production of an antidysenteric serum, of therapy.

The work of Duval and Bassett would appear to have established the fact that the B. dysenteriæ is the causal factor of some diarrheal diseases of children.

The author subdivides his cases into three main groups, clinically: (*a*) Acute dyspeptic or fomental diarrhea (gastro-intestinal catarrh) in which the toxic symptoms are prominent; (*b*) colitis, with definite lesions of the intestinal mucosa; (*c*) cases of marasmus and chronic indigestion, with an added element of infection. It is understood that these divisions do not represent clinical entities, but that one form of illness may pass into another.

Of special complications, mention should be made of pneumonia and parenchymatous nephritis.

The blood count showed a leucocytosis, with relative increase of the polymorphonuclears. The range of numbers of the white cells was so great, however, that no diagnostic reliance could be placed on the results.

The treatment used is that ordinarily recommended—initial purge, withdrawal of milk and the use of cereals, of egg albumin and of stimulants as needed. Of the latter, strychnia, digitalis, alcohol and atropin seemed useful in the order named.

In a few cases an antidysenteric serum supplied by Dr. Flexner was used,

without effect, however. It is possible that a more powerful serum may prove of value, especially if used early in large doses.

With reference to the propagation of the disease, it would appear probable that the drinking water may be one general source of infection, though direct contact will explain many cases, of course.

Influenza in Children.—WILLIAMS (*Journal A. M. A.*, July 4, 1903) calls attention to the great morbidity, and to the frequently great mortality of children from this affection. Age does not appear to have any great effect on the susceptibility, though infants, owing to better protection rather than to natural immunity, are relatively less often affected than older children. Owing to the widespread dissemination of the micro-organisms, prophylaxis is of little avail; nevertheless, exposure to actual cases is to be avoided when possible, as it appears certain that the disease may be conveyed by contact. Every effort should be made to keep the various mucous membranes in a normal condition, therefore, ordinary catarrhal colds should never be neglected.

The division of the disease into various types is more or less arbitrary, as nearly all the cases show the mixed type.

However, the cases in which catarrh of the mucous membranes is most conspicuous are the more common. Starting with a rhinopharyngitis, the affection spreads to the respiratory or gastro-intestinal tract, or both. But wherever there is mucous membrane we may have catarrhal inflammation set up.

The previous condition of these mucous membranes thus becomes a matter of great importance, the more nearly normal and healthy the membranes, the fewer will be the manifestations of the disease.

While the catarrhal manifestations are due to the micro-organism itself, the nervous, circulatory and febrile disturbances are due rather to the toxines elaborated by the bacilli. In this way many of the graver complications are to be explained.

A form of the disease often overlooked is the chronic variety; chronic cough, with glandular enlargement, is often influenzal in character. Relapses and sequelæ are common even during convalescence, and may follow even very mild initial seizures.

Feeding of Older Infants and Children.—HARTSHORN (*Medical Record*, June 22, 1903) discusses the feeding of children during the second six months of life. He believes that cereals are of great value, and in many cases easily digested. Flaked rice, cream of wheat, oatmeal gruel and farina give excellent results in individual cases. At the nursery and child's hospital the best results have been obtained by the use of bread and milk prepared in the following way: Stale bread, twenty-four to forty-eight hours old, is used. The pulp of this is soaked in boiling water until thoroughly softened, and the water then poured off; a cup of milk is then added and the mixture boiled for three or four minutes. It is then sweetened and cooled, and is ready for feeding. At first a teaspoonful once a day is given to an infant seven months or older, and the quantity is increased as the child is accustomed to it, until, at the end of ten days, the child receives two to three ounces daily. This food is given between the regular bottle feedings, and never more than one-half ounce is given at a time. If curds appear in the stools, or if symptoms of indigestion occur, the food is at once stopped. To children ranging from eighteen months to four years this food is given daily. In addition, they receive farina with milk, boiled rice with meat broth poured over it, occasionally a little jelly on bread, and during the fruit season they are allowed some easily digested fruit at noon. From his experience, Hartshorn believes that the bread and milk forms a valuable addition to the dietary of children.

The Fever of Dentition.—Corson (*New York and Philadelphia Medical Jour.*, July 25, 1903) insists that the fever which frequently accompanies the eruption of the teeth is not due to the local process, and is, therefore, not to be explained by the swollen condition of the gums, but in nearly every instance to some intercurrent affection. In the majority of cases the trouble lies in the gastro-intestinal tract.

The swelling of the gums rarely goes on to real inflammation, and suppuration is very rare. Lancing of the gums is thus hardly ever indicated, indeed, the author has had two deaths following the procedure.

Treatment should, therefore, be directed to the intestinal condition. Calomel and castor oil are usually indicated.

Locally, the author has had excellent results from a mouth wash containing chlorate of potash and tincture of hydrastis canadensis.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

Results of Surgical Treatment of Brain Tumors.—M. Allen Starr (*The Journ. of Nerv. and Ment. Dis.*, No. 7, 1903).—This paper is an analysis of three hundred and sixty-five cases of operated brain tumors collected from literature, including the author's considerable personal material. Of these three hundred and sixty-five cases, the tumor was not found three times; in fifty-nine cases the tumor was removed and the patients died; in one hundred and sixty-eight cases the patients recovered. There are two elements which render the chances of success at the present time better than formerly: the accuracy of diagnosis and the accuracy of localization. The chances of success have also been materially increased by the newer surgical methods of entering the cranial cavity. Starr is very skeptical concerning the success of operation on cerebellar tumors. His own experience with nine unsuccessful operated cases amply supports his view. The causes of failure in operated brain tumors are, first, mistakes in the diagnosis and the location of the tumor; second, tumors, even when correctly located, cannot be removed, or even when accessible for operation, cannot be removed, such as an infiltrating glioma without any boundary and with a vascular softened tissue about them. In addition this variety of tumor is particularly liable to return even if partly removed.

The Cyto diagnosis of Cerebro-spinal Fluid.—Schoenborn (*Neurolog. Centralbl.*, No. 13, 1903).—Most of the work on the study of the cerebro-spinal fluid in various chronic nervous diseases has been done in the French clinics. This is rather strange, as the first important work on this subject was done some ten years ago by Quincke of Kiel. The Germans have been singularly lax in following up the line of work done by him. In this paper, Schoenborn attempts to bring to the attention of German physicians the importance of the examination of the cerebro-spinal fluid. He first gives a very concise, but thorough review of the work that has already been done, and then notes the following as the result of his own investigations: In eight cases of tabes a very marked lymphocytosis was found seven times. In one case a moderate degree was noted. In a number of other diseases, such as progressive muscular atrophy, paralysis agitans, glioma cerebel, neuritis, the finding was negative. A pathological lymphocytosis is defined as follows: With a magnification of four hundred to four hundred and fifty, three or four lymphocytes are abnormal. In the cases

of tabes in this paper, an average of thirty to forty were found in a field. The author believes that the study of cerebro-spinal fluid deserves more attention than has yet been given to it among German physicians.

Meningismus and Paroxysmal Mental Puerilism in a Hysteric.—DUPRE and CAMUS (*Rev. Neurolog.*, No. 13, 1903).—A number of cases in which symptoms suggesting meningitis appear with recovery of the patient are being reported in increasing numbers. To this group of symptoms various terms have been given—pseudo-meningitis, psychogenic meningitis, meningismus, etc. In the case described above many points of great interest are brought out. A girl, eighteen years old, showed evidence of what appeared to be a serious illness. Temperature 47° C., headache, cephalic cry, strabismus, myosis, paresis of inferior facial, hyperesthesia, etc. The patient recovered. The authors note the following points of unusual interest in the case: 1. The succession in the same case of meningismus and mental puerilism. 2. The presence of fever of a high degree, typical of meningitis—probably an example of hysterical fever. 3. The existence of Babinski sign. 4. Recurrence of the meningitic symptoms caused by the death of a sister from tubercular meningitis.

Reactionless Pupils in Hereditary Syphilis.—FINKELNBURG (*Deutsche Zeitschr. fuer Nervenheilk.*, vol. 23, Nos. 5 and 6).—It is rather rarely that the relationship between hereditary syphilis and disturbances of the nervous system in both parents and children can be definitely shown. In this paper two cases, which describe very well this connection, are reported:

Case 1.—Boy, eight years old; father, tabetic and syphilitic. Mother aborted several times. The child has a unilateral reactionless pupil, with sluggish light reaction on the other side.

Case 2.—Girl, sixteen years old, backward mentally and physically. Mother had dementia paralytica; father tabes. Pupils on both sides do not react to light, and on one side there was a failure of accommodation. Eye-ground normal.

Remarks on the Treatment of Paralysis Agitans (Parkinson's Disease).—J. MADISON TAYLOR (*Therapeutic Gaz.*, July 5, 1903).—A further report of a method of treating paralysis agitans by exercise. The method can be described as a series of carefully directed movements, both passive and active, by which the contractures shall be overcome, the joints loosened up, and flexibility compelled, and next education in voluntary movements, almost solely of the extensors in the arms, the flexors in the legs, not neglecting other muscles little used. To sum up, the indications in Parkinson's disease are to overcome the growing atrophy, to induce systematized return to normal activity, to use all gentle and yet forceful means to secure elasticity to the tissue, and finally to stimulate the circulation in the spinal cord by graduated pressure upon the spinal areas through which, reflexly, many of the fibers in the cord can be restored to function and others improved. The author has had some success in following this method of treatment, particularly in one case where the intelligence of the patient was much beyond the normal.

GENITO-URINARY SURGERY

IN CHARGE OF

H. McC. JOHNSON, M. D.

Pathological Anatomy of Acute Cystitis.—MOTZ and DENIS (*Ann. des Mal. des Org. Urin.*, June 15, 1903).—The pathogenic anatomy of cystitis has been but little studied by urologists. Only last year a study of chronic cystitis was made by Halle and Motz, but when we look for a histologic description of the bladder walls in recent acute cystitis we cannot find a single contribution, although macroscopic reports have appeared. These are more or less misleading, because they confound acute and chronic cystitis. Contrary to published macroscopical accounts, neither the muscular nor the peripheral adipose-conjunctive layers are ever infiltrated in recent acute cystitis.

From a study of fourteen bladders with acute inflammation lasting from ten days to three months, the authors demonstrate that in acute cystitis of medium intensity:

(*a*) The epithelium is not altered, nor does it fall away;

(*b*) The embryonic infiltrations can be massive, invading uniformly all the sub-epithelial layers; separated and divided by tracks of conjunctive tissue; or, on the contrary, grouped in masses, forming veritable abscesses;

(*c*) The inflammatory lesions invade only the derma and sub-mucosa, without ever attacking the muscular layers;

(*d*) The vessels are strongly dilated in the beginning, and later take on considerable development;

(*e*) In cystites which have lasted a certain length of time the muscle becomes hypertrophied.

Surgical Treatment of Nephritis.—FERGUSON (*J. A. M. A.*, July 4, 1903).—The author says that the first announcement that has ever appeared recommending a surgical treatment for Bright's disease is a paper published by himself, March 11, 1899, entitled "The Surgical Treatment of Nephritis, or Bright's Disease." It seems that both Edebohls and Guiteras, who have made a historic review of the subject, overlooked this publication in the *Journal of the American Medical Association*. The various operations published by different authors are collected and discussed. Due credit is given Edebohls for having promulgated the operation, and having individually worked out the surgical treatment. Seventeen cases are reported in detail, the vast majority of which were for movable and chronically inflamed kidneys, but the two cases carried out for parenchymatous nephritis resulted in the most excellent and astonishingly prompt improvements. It was noticed that a tender kidney is often relieved after its fellow has been decapsulated. While the microscopic appearance of a kidney, as observed and handled on the operating table, and a study of the microscopic condition of the organ in a living patient, are of superlative importance, yet the only scientific procedure to pursue to obtain anything like an accurate knowledge of the *status presens* of a kidney under operation, is to remove a V-shaped piece of the cortical and pyramidal tissues and study it microscopically.

After giving the technique of his own operation, the author affirms that in his opinion the excellent immediate results are due to the relief of kidney tension, and that the permanent benefit accrues in the cases demanding it from the establishment of collateral circulation with the diseased cortex. There are many instances of the formation of vascular adhesions in different parts of the body to support this latter fact. He regards decapsulation of the kidney in acute, sub-acute and chronic nephritis, both interstitial and parenchymatous, as a prac-

tical and effectual surgical procedure, but by no means a panacea for Bright's disease.

Details of Technique in the Application of the Graduated Divisor—Interpretation of Results.—CATHELIN (*Ann. des Mal. des Org. Urin.*, June 15, 1903).—Good reports continue to appear from the use of Cathelin's bladder divisor. The author has made several improvements in the instrument, and especially now furnishes three sizes of membranes for bladders of different capacities. He gives minute details for manipulating the instrument, the patient, etc., and publishes numerous cases of various kidney and bladder affections in which the divisor was of signal service.

The Boy's Venereal Peril.—VALENTINE (*Jour. A. M. A.*, July 4, 1903).—The author considers the method of teaching the people concerning venereal diseases, the dangers of these diseases and the common ignorance upon the subject. He adds to his paper in reprint, but does not publish it in the journal, some remarks addressed to boys, and in language easily understood by them. In these remarks the following subjects are considered:

1. The evidences of awakening generic tendency.
2. Masturbation and the impulses or defects that lead thereto.
3. The evil influences that mislead youths into immorality.
4. Prostitution, public and clandestine, and the mental and physical destruction they bring.
5. Gonorrhea, chancroid, chancre, and their sequelæ.
6. Advertising quacks, nostrum venders and an expose of the methods they employ to swindle those afflicted with real or imaginary genito-urinary and other ailments.
7. The reasons why a youth with a real or fancied illness due to immorality should consult a physician whom he knows, or whom his father knows.
8. The reason why reputable practitioners do not advertise.

Extraction of a Fœtus of About Three Months from the Vesical Cavity of a Woman.—GUISY (*Ann. des Mal. des Org. Urin.*, June 15, 1903).—This patient was a woman, thirty-six years of age, married for sixteen years, mother of four children, having had two abortions. According to her statement, she was four months pregnant when suddenly seized with complete retention of urine, which lasted almost twenty-two hours. Fifteen days before this, frequent and painful urination, with a discharge of small, hard bits having a cadaveric odor mixed with clots, took place, later becoming more purulent, bloody and fetid, while the vaginal flow was sero-bloody and of quite a bad odor. Upon examination the bladder was full, distended, and reached a little above the umbilicus. In its cavity was a fœtus of about three months, fifteen centimeters long, which completely blocked the urethral canal. By enlarging the urethra through incision and dilatation, this was with some difficulty removed, and was followed by a considerable quantity of bad urine, full of clots and membranous debris. Under continuous bladder drainage and antiseptic lavage the patient made a complete recovery in eighteen days. It is supposed in this case that primarily there were adhesions between the right fallopian tube and the bladder. And that this was a case of extra-uterine pregnancy, in which there was a gradual passage of the fœtus from the tube into the bladder.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

On an Urticarial Skin Affection.—HARTMAN (*Archiv f. Dermat. u. Syph.*, March, 1903; *Brit. Journ. Derm.*, July, 1903).—In this contribution the writer describes seven cases of what is usually named "urticaria perstans." The majority of these cases occurred in the dermatological clinic of Dr. Herscheimer at Frankfurt. The leading symptoms present in these cases were itching and a papular eruption with excoriations. The papules were rounded, indurated, reddish or reddish blue in color, and varied in size from a lentil to a ten-pfennig piece. The surface of the papules was smooth and somewhat shiny. Numbers of them were capped by a hemorrhagic crust from scratching. In one of the cases the surface of the lesion was verrucose. The eruption was widely distributed, but left the palms, soles and scalp free, and as a rule the face was little affected. The itching seemed to precede the papular eruption and sometimes had existed several years before the first papule appeared. The itching, as a rule, was not universal at first, but began on one of the extremities. In none of the cases was there evidence that any of the lesions began as an ordinary wheal. It is a disease of adults and begins usually after the patient has reached the age of twenty; it seems to be equally common in either sex. The condition differs from prurigo of Hebra in that the lesions are larger and fewer, and in that it affects the flexor aspects of the joints and limbs. A histological examination of two of the cases showed chronic inflammatory changes in the skin, a cellular infiltration in the corium around the blood vessels, glands and in the papillæ, and a diminution of the elastic fibers. The epidermis was secondarily affected, the prickle-cell layer being thickened, and there was hyperkeratosis of the horny layer in some places and parakeratosis in others. After discussing the literature at considerable length, the writer concludes that we have to deal in this affection with a chronic pruritus associated with a papular or verrucose eruption which is secondary, and is probably the result of mechanical irritation.

Erythemata as Indications of Disease. (The Annual Address to the Dermatological Society of Great Britain and Ireland.) JAMES GALLOWAY, M. D., (*Brit. Journ. Derm.*, July, 1903).—Perhaps the most satisfactory way for considering this group of eruptions is by dividing them into a simple erythemata the result of hyperemia, transient in character as a rule and causing no change of a permanent nature in the structure of the skin; and the exudative erythemata in which, as the result of hyperemia, transudation and exudation, as well as of actual inflammation, changes in the structure of the skin occur, which are apt to be of some duration, or, in certain cases, permanent. The latter group is the larger and by far the more important.

Simple erythemata may develop nodular and increasing lesions, and these nodular lesions may arise quite apart from tuberculosis causation. This is verified by cases cited by the author, the simple erythemata indicating serious disturbance of nutrition. The most frequent indication being a certain degree of tachycardia and the serious tendency of the skin to severe injury from trivial traumata. The most simple of the forms of erythemata may pass on to true exudative lesions; and in the case of symptomatic erythemata of contagious diseases, it becomes very difficult to decide whether they should be classified as belonging to the simple or exudative forms. The pigmentation and desquamation are proofs of exudation. There are several forms of erythemata due to bacterial and protozoan infection.

Evidences of visceral disorders and lesions of the alimentary tract, which is expressed in erythema (erythema multiforme), due to the ingestion of improper foods and toxin poisoning. The amount of clinical evidence is sufficient to draw particular attention to errors of digestion and metabolism in the causation of certain types. Osler, of America, emphasizes the close relationship between the erythema group and serious visceral affections; gastro-intestinal disturbance, colic, dilatation of the stomach, nephritis, hemiphlegia, inflammation of the lungs and joints, etc.

Relations of lupus erythematosus: In all of the forms of erythema, hitherto considered, the nature of the lesion is such that the formation of new fibrous tissue as the mode of healing does not occur, or only to such an extent as not to be appreciable as a scar. But it has long been recognized that there is a peculiar form of erythema which does produce atrophy of the skin and the production of scar, without ulceration and without infection by pyogenic influences. This disease is known as lupus erythematosus. The histological evidence of this disease lends no support to the theory of its tuberculous origin, nor has inoculation experiments with this tissue produced tuberculosis in animals. The nature of the inflammatory process in lupus erythematosus is obviously different from that of exudatory erythema, and yet it is possible it may be a difference due to the virulence of the poison and the peculiar state of the attacked tissue—that is to say, a difference of quantity rather than in the quality of the poison.

Clinical evidence strongly supports the opinion that lupus erythematosus is a disease which should come into close relationship with erythema exudatinum, therefore the cause is probably a toxemia, arising from various sources, just as in erythema multiforme, but in the former there seems to be a tendency for easily produced paralysis of the vasomotor mechanism.

Coryza and Hereditary Syphilis.—Dr. L. Carralero, Madrid (*Jour. Amer. Med. Asso.*, May 9, 1903), said at the International Medical Congress at Madrid, 1903, that the coryza of nurslings was one of the most constant, in the majority of cases the earliest, and at times the only symptom of precocious hereditary syphilis. The diagnosis presents difficulties when there are no other symptoms, but every case of purulent rhinitis in a nursling was to be regarded as symptomatic of a diathesis of syphilis. The condition is *per se* of serious import, inasmuch as it impairs the act of sucking and also leads to broncho-pneumonia and otitides. Treatment is by general anti-leutic courses and local measures.

A Clinical Report of a Case of Blastomycosis of the Skin from Accidental Inoculation.—Newton Evans, M. D. (*Jour. Amer. Med. Asso.*, June 27, 1903).—The subject of the report is a physician who, in performing an autopsy on a case of systemic blastomycosis, accidentally inflicted a slight wound with a needle on the palmar surface of the left index finger. The wound healed. At the end of a week a small pustule appeared at the point, which was opened and evacuated. It reappeared after several days. This course of events was repeated several times till in the course of several weeks, when signs of acute inflammation appeared. The surface became swollen, red and tender. This was incised several times without improvement, the finger growing more painful, and the axillary lymph nodes became enlarged. A week after this the wound was curetted, the fungous granulations and tissue were scraped away down to the tendon. After two weeks the wound was crusted, when it was noticed that small pustules were forming about and beneath the crust, and a like patch on the back of the hand. The original wound finally healed, leaving a scaly area which is somewhat nodular and reddened about the edges.

In the tissue curetted from the wound typical, double contured, budding blastomyces were found in great abundance, and exactly identical in appearance to the organisms found in immense numbers in the case on which the au-

topsy was performed. An interesting feature of the case was the appearance of symptoms resembling acute articular rheumatism fourteen days after the curetting of the wound. The left wrist and both ankles became swollen, hot and tender, and on the anterior surface of both lower legs there appeared raised, reddened and tender areas from one-half inch to two inches in diameter, which resembled erythema nodosum.

Aphthæ and Herpes—Contracted by Children Drinking Milk from Cows Suffering from Foot and Mouth Disease.—G. F. Brush (*Jour. of the Amer. Med. Asso.*, June 10, 1903).—Brush believes from his investigations that aphthæ and certain herpetic conditions of the mouth can be contracted by drinking the milk from cows infected with foot and mouth disease. He has gone to much trouble to visit districts where herds of dairy cattle have been so afflicted, and from this practical method of investigation he has come to the above conclusion. He says there is an aphthous condition of the young in both the bovine and human families that is non-contagious, and there is also an aphthous condition in both these species that is contagious, and the similarity between the contagious and the non-contagious in both families is so marked, clinically, that it is very difficult to separate them. The simplest way to diagnose between contagious and non-contagious stomatitis aphthosa in the milk-fed young is to stop the milk. Then, if the milk was the cause, the diagnosis is made and the affection cured.

LARYNGOLOGY AND OTOLOGY.

IN CHARGE OF

William E. Sauer, M. D.

Anesthesin in the Treatment of Inflammatory Conditions of the External Auditory Canal.—Haug (*Archiv fuer Ohrenheilkunde*, Band 58, Heft 3 und 4) gives his experience with anesthesin in the treatment of inflammatory conditions of the external auditory canal, and as a local anesthetic for performing paracentesis of the drum membrane. Solutions of the drug in oil 1–50 or 4–50, or in combination with glycerin, carbolic acid, menthol, and thymol were employed. These solutions were applied to the canal with cotton applicators or simply instilled and allowed to remain. He found that in the great majority of cases the pain was relieved in from two to ten minutes, the effect lasting two hours or longer without renewing the application. In some cases the pain returned very quickly and in others there was no apparent relief. As a local anesthetic for performing parecentesis, he found that it was not absolutely reliable, giving complete anesthesia in some and failing in others.

A Case of Paraffin Injection Into the Nose Followed Immediately by Blindness from Embolism of the Central Artery of the Retina.—Hurd and Holden (*Medical Record*, July 11, 1903) report another unfortunate result following paraffin injections for cosmetic purposes. The case was that of a man aged thirty, who had the paraffin injected to be relieved of a saddle-shaped nose. Two previous injections had been made without any ill effects; while the third injection was being made the patient was seen to rub his right eye, and he at once noticed that he could not see with it. A little later ecchymosis appeared about the tip of the nose, indicating that a vein had been punctured. The appearance of the eye ground after the accident revealed that the main inferior branch of the central artery of the retina and its division to be empty and collapsed. All attempts

to overcome the total blindness failed. How the embolus made the round of the circulation is not clear. Dr. Evans suggested the possibility of the patient having a persistent foramen ovale, which would make an escape of the pulmonary circulation possible.

Nasal Polypi.—A Study of One Hundred and Forty-seven Cases.—CLARK (*Boston Medical and Surgical Journal*, July 2, 1903).—After a study of one hundred and forty-seven cases of nasal polypi the author concludes that our knowledge of them is still very unsatisfactory. He emphasizes the following points: (1) The question of a previous injury to the nose is to be considered in the etiology of polypi. (2) Probably only a small proportion of cases are caused by sinus disease (usually ethmoiditis). (3) A local vasomotor disturbance, which may be of constitutional origin, stands in a causative relation to polypi in a certain number of cases. (4) The removal of the middle turbinate will be found necessary in many cases where the growths are diffuse. (5) Many cases of nasal polypi can be cured if patients will return for treatment as instructed. He believes the best way to remove nasal polypi is by the cold wire snare and does not believe in cauterizing the pedicles with either the galvanic cautery or acids. He has tried the application of 95 per cent. alcohol and found it to be of some benefit.

The Wisdom of Removing Enlarged Tonsils Whenever Enlarged and Diseased.—LAUTENBACH (*Pennsylvania Medical Journal*, June, 1903).—The author believes that enlarged tonsils are always a menace to health and that they should be removed, unless there are unusual complications. The operation is not difficult and is rarely followed by serious results, but is attended with increased health, better respiration and improved digestive function; there is a lessened liability to microbic diseases, especially diphtheria, and as a rule there will be an improvement in the nasal catarrh, which is usually present. The lymphoid structures in the pharynx will disappear, there will be no more tonsillitis and the tendency to ear disease will be diminished.

The Indications for Operative Intervention in Middle Ear Suppuration.—POTTS (*The American Journal of the Medical Sciences*, July, 1903) states that no definite rule can be made for these cases, for each must be studied upon its own merits. The chief point in the diagnosis is to determine the cause of the discharge. If the latter consists chiefly of stringy, ropy mucus, the exciting cause will usually be found in the Eustachian tube or nasopharynx; but if the discharge is seropurulent or a creamy pus, especially if profuse and of long duration, the tympanum and antrum must be looked to. Careful search must be made for necrosed bone and if found should be treated on surgical principles. Curetting must be done and thorough drainage established; if these measures fail, more radical treatment will be found necessary, and the question of an operation on the antrum and mastoid must be decided.

In concluding his article the author gives a brief review of the symptoms indicating operation in many cases of chronic suppurative otitis media, as follows:

Profuse and long-continued discharge suggestive, but not diagnostic, of antrum or mastoid involvement.

The fluctuating swelling over the mastoid is diagnostic when present, but its absence not contraindicating operation. Edema behind the auricle is more apt to be due to furuncle. Tenderness over the mastoid, especially if persistent, is of great significance, but this may be doubtful or even absent if the outer table is sclerosed.

The inflamed, tender, and bulging upper posterior canal wall is one of the most important signs, and its non-relief by treatment is a sure indication for

operation. A sinus, whatever its location, leading into the mastoid is a positive indication.

Facial paralysis is of interest, but not important.

Epileptiform attacks usually indicate possible cerebral pressure.

Marked and rapid failure of health is more apt to be found in adults than in children.

The rapid fluctuations of temperature are important signs and usually indicate pyæmia.

The slow and thready pulse out of proportion to the elevation of temperature, irregular or sluggish pupils, rapid failure of health, rigors or convulsions are signs of intracranial pressure.

Tenderness and edema over the occiput are very apt to be present when the sinus is thrombosed.

Otitis Media in Infancy.—MORSE (*Journal American Medical Association*, July 18, 1903) believes that the profession as a whole do not realize as it should the frequency of otitis media in infancy and its importance in differential diagnosis. The author claims that many awkward mistakes would be avoided if the ears were examined, even when the signs of other conditions are present. He says it is a mistake to think that inflammation is always associated with earache, for there are many infants with acute inflammation of the middle ear that show no signs of pain at any time. The only way to determine satisfactorily whether or not there is inflammation of the middle ear, is to examine the ear with the speculum; all other methods of examination are incomplete and misleading. The writer admits that the examination of an infant's ear is no simple matter, but claims the results obtained are well worth the time required to master the technic.

Acute inflammation of the middle ear is usually associated with fever, which may be high. It can cause many reflex symptoms, such as convulsions, etc., but, according to the author, acute inflammation of the middle ear is more often mistaken for pneumonia than for any other condition. Several cases are reported in detail.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

Subretinal Cysticercus in the Macular Region.—GALEZOWSKI (*Rec. d'Ophtalm.*, April, 1903).—Eighteen months prior to coming under observation, the patient, a healthy young man, noticed failure of central vision of the right eye with occasional flashes of light, often assuming the form of a "zigzag." Examination showed: R. eye, V. = 1-10 excentric (central scotoma). Ophthalmoscopically the macular region was occupied by a round, smooth, shining, grayish-white mass, clearly demarcated from the surrounding tissue and projecting somewhat into the vitreous. Laterally four pseudopodia-like processes emerged. Above was a cylindrical neck containing the head of the cysticercus which, according to the writer, could be seen to advance toward the vitreous and retract beneath the retina. Otherwise the choroid was healthy. One month later the cysticercus had projected still further into the vitreous.

Galezowski proposes the following operation: Incise Tenon's capsule near the rectus externus. Seize the globe and draw it inward as far as possible. Then make an incision 1 cm. long through the sclera and choroid, as near as possible to the site of the cysticercus. The choroid will push into the gap, and the contained cysticercus may then be cut off and the wound cauterized.

Three Essential Points in the Operation for Cicatricial Ectropion.—F. C. Hotz (*Jour. A. M. A.*, May 2, 1903).—The points alluded to are: (1) the proper division and fixation of the skin flaps; (2) the selection of the most suitable material for covering the lids; (3) the shortening of the overstretched lid border.

(1) To avoid re-eversion of the upper lid, the lid flap is attached to the upper border of the tarsus and below to the free margin of the lid; while a second (skin) flap has its point of purchase outside of the lid, and cannot, therefore, disturb the position of the lid margin. In the lower lid the lid flap must be fastened to the tarso-orbital fascia to restore the normal boundary line (Arlt's tarsomalar furrow) between the lower lid and the cheek.

(2) The skin of the normal lid is thin, light and adaptable; it adjusts itself readily to slight changes in contour. The thick skin of the forehead, temple and cheek does not possess these qualities, and is unsuitable for transplantation; the same is true of a Wolfe flap taken from the arm. Hotz advocates the use of the cicatricial skin usually found in the neighborhood of an extensive ectropion, or failing this, a Thiersch graft.

(3) The lid margin is elongated by the downward traction of the cicatricial tissue, and will not closely fit the curvature of the globe after reposition. To obviate this difficulty, Hotz shortens the lid margin by removing a small piece near the outer canthus.

The technic of the operation on the upper and lower lids is fully described.

Two Cases of Sympathetic Ophthalmia. — Valois (*Rec. d'Ophtal.*, April, 1903).—In sympathetic ophthalmia, especially in the type which assumes the form of a serous iritis or choroiditis, treatment by subcutaneous injection and inunction of mercury often fails to prevent the progress of the disease toward blindness. Moreover, these methods involve saturating the system with great quantities of the therapeutic agent in order to impress the diseased organ. Assuming that the disease is due to an infection, is it not more rational to inject the remedy at the site of infection? Darier and others advocate the injection of mercurial salts into the cellular tissue of the orbit of the enucleated eye, and subconjunctival and intra-tenonian injections of sublimate in the sympathizing eye.

In the two cases reported all the usual methods were tried unavailingly, and improvement began with the first intraorbital injection.

In both cases enucleation, far from improving the condition of the sympathizing eye, seemed to give a fresh impetus to the disease.

Case 1.—The sympathizing eye presented a cloudy aqueous, deposits on Descemet's membrane and posterior synechiæ. The fellow eye (staphylomatous following an iridectomy) was enucleated and the optic nerve resected as far back as possible. Under atropia locally and subcutaneous injections of cyanate of mercury, the deposits on Descemet's membrane increased, flocculi appeared in the vitreous and vision diminished to 2-10. At this stage six drops of a solution of cyanate of mercury (1 centigm. to 1 c.c.) was injected into the cellular tissue of the orbit of the enucleated side. The following day vision had risen to 4-10, but had diminished again by evening. Five injections at intervals of two days were given, each producing slight, but transient improvement in vision. The case passed through a period of increased intraocular tension (controlled by eserin) alternating with exacerbations of iritis with the formation of synechiæ (con-

trolled by atropia). From this time on improvement was rapid and vision ultimately rose to normal.

Case 2.—Sympathetic ophthalmia following penetrating wound at sclero-corneal margin. Enucleation and exhibition of the usual remedies failed to check the disease, the symptoms including muddy aqueous, descemetitis, chemosis, edema of the lids, severe pain and diminished vision.

Intraorbital injection of cyanate of mercury was followed, in twenty-four hours, by subsidence of the pain and disappearance of the chemosis and edema of the lids. Pupil dilated *ad maximum* and vision improved. Injections were continued tri-weekly for a fortnight, and then replaced, on account of unbearable pain, by intravenous injections. Ultimate vision, 8-10.

The method has the disadvantage of being very painful and of producing at times an edema of the corresponding side of the face.

Remarks on Simulated Concentric Contraction of the Visual Field.—BICHELONNE (*Ann. d'Oculist.*, April, 1903).—The patient, a young soldier, was thought to be a somnambulist. The ocular examination disclosed: R. eye, V. = 1, L. eye, V. = 0.6. Emmetropia. Fundus normal in both eyes. The visual fields for white and colors were found concentrically contracted. Repeated examinations by different observers gave practically identical fields. Variation in central vision led to the suspicion of dissimulation, and the patient, asked to make a clean breast of it, confessed that he had simulated the attacks of somnambulism and had replied falsely to the visual tests. Two months later fields and vision were normal. Bichelonne found experimentally that an individual could, at will, reduce his field concentrically and that subsequent examinations would practically coincide with the first. The contraction, however, was always concentric and of high degree. The phenomenon is, in fact, merely the substitution of the limits of fairly distinct vision for the limits of the perception of white and colors.

Several tests for the detection of malingerers are described.

BOOK REVIEWS.

MATERIA MEDICA, THERAPEUTICS, MEDICAL PHARMACY, PRESCRIPTION WRITING AND MEDICAL LATIN. A Manual for Students and Practitioners. By WILLIAM SCHLEIF, Ph. G., M. D., Instructor in Pharmacy in the University of Pennsylvania. Second edition, pp. 389. In Lea's Series of Pocket Text-Books, edited by Bern B. Gallaudet, M. D. 1902. Lea Brothers & Co., Philadelphia and New York.

This volume affords a condensed yet comprehensive text-book and work of reference on materia medica, therapeutics and a range of cognate subjects which can be grouped together with manifold advantage. In addition to the paragraphs covering the physical properties, physiological action, therapeutics and toxicology of each medicinal agent, it contains chapters on prescription writing, medical latin, medical pharmacy and practical anesthesia. Tables of doses, of poisons and antidotes and of incompatibilities, together with a therapeutic and a general index, conclude a volume which may prove of service to practitioners as well as to students. It contains in concise, definite and assimilable form the essential knowledge required in the ordinary college course on materia medica and therapeutics.

A TREATISE ON DISEASES OF THE EYE, NOSE, THROAT AND EAR. For Students and Practitioners. By Various Authors. Edited by WILLIAM CAMPBELL POSEY, A. B., M. D., and JONATHAN WRIGHT, M. D. Illustrated with 650 engravings and 35 plates in colors and monochrome. 1238 pages. Lea Brothers & Co., Philadelphia and New York.

In the production of this excellent treatise the editors have enlisted the services of twenty-seven authors, who have been chosen for special fitness in connection with the subjects assigned. The section on diseases of the eye numbers 666 pages, that on the nose and throat 384 pages, that on the ear 263 pages. Each author has been permitted to cover his subject in its entirety, thus largely obviating the repetition which has constituted a serious defect in former systems.

The book may fairly be said to fill a gap in American medical text-books. The day has passed when the specialist in ophthalmology, for example, can afford to be ignorant of the fact that many cases of frontal and temporal headache accompanied by symptoms of asthenopia are in reality due to obstructive disease of the nasal accessory sinuses; such cases do not yield to the most careful refractive correction, to tenotomies, or to prisms, but clear up as if by magic on correcting the nasal abnormality. Indeed, it is daily becoming more and more evident that the pathologic relations of the structures under consideration are precisely what might be expected from their anatomic juxtaposition. The present and future specialist in any one of these branches must at least have a general survey of the field worked over by his colleague in a cognate branch. This volume, containing, as it does, an adequate exposition of each of the related specialties, will strongly appeal to the ophthalmologist, the rhinologist, the laryngologist and the otologist, affording him an opportunity of refreshing his knowledge on essential points. It will be useful, also, to the general practitioner to help him to understand better the bearings of these affections on internal medicine.

The illustrations have, as a rule, been well chosen. It is unfortunate, however, that many have been used without acknowledgment of their source. Doubtless this will be corrected in later editions.

A Text-Book of Anatomy. By American Authors. Edited by F. H. Gerrish, M. D., Professor of Anatomy, Bowdoin College. Second edition, revised and enlarged; 1003 engravings in black and colors. Lea Brothers & Co., Philadelphia and New York. 1902.

This volume is in most of the essential features similar to the first edition, which it closely follows, and will be held in the same popular favor by students and teachers of anatomy. The arrangement of the subject-matter is along conventional lines, but the concise and clear descriptions make the book particularly valuable for students. The whole ground is completely covered in a manner most convenient for study either on the cadaver or away from it, but no attempt is made to enumerate anomalous findings, which might have wisely been added, lending interest and making the book more valuable as a reference book. An especially striking feature is the number and high character of the illustrations which have departed from the type so long familiar in older works, and either in a schematic or actual depiction of findings show conditions most clearly. The old nomenclature has been retained for the most part; rather a matter of regret, as the new nomenclature received the sanction of many of the most prominent anatomists of America, after its compilation by the foremost teachers of the world, and universal uniformity seeming a possibility of the near future, such an excellent work as the one in question should have accepted the new condition among the very first of American editions.

The Duties of the Individual and the Government in the Combat of Tuberculosis. By S. A. Knopf. Published by the Committee of the Prevention of Tuberculosis of the Charity Organization Society. New York.

In a few pages here is condensed an exceedingly valuable amount of information on tuberculosis and on its prevention. The diction is clear and popular, and will appeal to the mind of the public. The little work will certainly do much good in the great fight we are waging against this disease. As the main stress naturally is laid on the prevention of infection, mechanical measures serving this purpose are definitely and lucidly outlined, and it must be admitted that if the precautions advised would be observed generally, it might be possible to do a great deal toward success. Daily experience, however, shows how slow such a progress necessarily will be. Our spitting ordinance is by this time, a few months after its promulgation, a forgotten thing. So it will go for a long time with other rules. The exposure to infection is general, and, in fact, nearly every living human being really becomes infected at some time or other; the majority, however, have vitality enough to overcome this infection completely. On the other hand, we know that in ninety out of one hundred cases tuberculosis has existed, perhaps years before it is recognized; we still continue to wait for the appearance of tubercle bacilli in the sputum to make the diagnosis. How much could be done here to prevent infection, prevent a patient from becoming a disseminator of the virus. The reviewer thinks a pamphlet to the medical profession, explaining certain early symptoms and containing information about the method to establish or refute their tuberculous origin, would be of much wider reaching influence. Test a patient with tuberculin, and, when the reaction positively shows the presence of an infection, adopt the proper means, and we all know that these patients will almost invariably recover, without ever having expectorated a single bacillus. As long as tuberculosis means cough and expectoration, an annihilation of the disease remains impossible. All of these attempts to arouse the pubic mind to hygienic and mechanical care will be slow in effect and never will influence the community as a whole. In a limited way they will do good, and perhaps will prepare the course for more radical measures, but they alone will never eradicate the trouble.

The words of the author about the so-called consumption cures should everywhere become known, and government, state and city officers should see to it that this great evil is abolished. The assertion that there is no specific treatment for tuberculosis is perhaps too radical, as the author will certainly not deny the reliability of the reports that are daily increasing on the beneficial and specific effects of the treatment with Koch's tuberculin.

MATERIA MEDICA AND THERAPEUTICS. By DR. ROBERTS BARTHOLOW. Eleventh edition, revised and enlarged. D. Appleton & Co. 1903.

After an interval of four years this well-known text-book is again before us in a new edition. In the preface the author maintains that he has always tried to preserve the practical character of the work as a storehouse of facts. In spite of the modern tendency to develop physiological experimentation in pharmacology, the author believes that empirical knowledge, supported by careful clinical work and improved by sound induction, should not be neglected.

The general scheme of the work will be familiar to most readers. A short bibliography appended to each article adds much to its value as a book of reference. In general, however, there is a tendency to give too many indications for the use of the various drugs. This tendency we have noted in other text-books on therapeutics, and believe it does much to confuse the physician, and, above all, the student. Reports of beneficial effect of drugs in certain diseases are often based on one or two cases, and such reports do not deserve to be noted unless further extensive tests show that this beneficial effect was not a mere coincidence. To give an example, we have the following indications given for ergot: Chronic diarrhea, dysentery, conjunctivitis, cervicitis, pharyngitis, gonorrhea, acne rosacea, hemorrhoids, relaxation of the sphincter ani, prolapsus of the rectum, enlarged heart, aneurisms, hemorrhagic diathesis, epistaxis, hemoptysis, menorrhagia, subinvolution of the womb, recurrent mania, epileptic mania, chronic mania with lucid intervals, migraine (!), epidemic cerebro-spinal meningitis, acute myelitis, blepharitis, phlyctenular ophthalmia, chronic metritis, uterine fibroids, polypi of the uterus, congestive dysmenorrhea, incontinence of urine, spermatorrhea, paralysis of the bladder, diabetes inspidus, uterine inertia during labor, post-partum hemorrhage, hypodermic injection for varicocele, deficient erections and loss of the capacity for coitus. It sounds almost like a patent medicine advertisement to find ergot recommended for so many conditions. Above all, the important indications are not sufficiently emphasized, or are even given wrongly. We find ergot recommended for inertia in the second stage of labor, an indication that, in spite of the reservations made, is absolutely to be condemned. We also miss a discussion of the properties of ergotol and ergot aseptic, which at least deserve mention.

In the four new articles of his text-book Bartholow takes up Chloretone, Dormiol, the Roentgen Rays, and Yohimbin.

BACTERIOLOGY. A Manual for Students and Practitioners. By FRED C. ZAPPFE. Lea's Series of Pocket Text-Books. Philadelphia: Lea Brothers.

Aside from the fact that the author has omitted to deal with any questions of merely scientific interest or with problems as yet under discussion, his book has no characteristic features that would differentiate it from others on the same subject. It contains a very plain and concise representation of what most people understand as bacteriology, although the conciseness sometimes leads the author to statements that cannot very well be upheld. So, for instance, it might be risky to say that in all abscesses staphylococci were found, or that for subcutaneous injections "mice are used." Similar lapses abound in the book, due to the attempt to be as short and direct as possible.

DISEASES OF THE HEART AND ARTERIAL SYSTEM. By ROBERT H. BABCOCK, A. M., M. D. D. Appleton & Co., New York and London. 1903.

This extensive work, comprising 850 pages of printed matter with many illustrations and plates, deals more particularly with the physical diagnosis and treatment of heart diseases. The author does not lay claim to great originality, but says that he has compiled the present work from various sources. Personal experiences are freely interspersed. The style is entertaining and the whole book is very logically put together. It begins with general considerations pertaining to the anatomy, physiology and examination of the heart. Then follows a discussion of the various diseases of the pericardium and endocardium. At the conclusion of the latter come three chapters on the treatment of valvular heart disease: (1) compensation being still perfect; (2) compensation being imperfect; (3) compensation lost. Under heading (2) he considers in detail the Schott exercise and bath treatment. This he has used with considerable benefit, but emphasizes that it should not be given to cases where compensation is wholly lost.

Further subdivisions of the book are Diseases of the Myocardium; Cardiac Neuroses; Diseases of the Arterial System. In the Appendix are three short articles on the X-ray, the Sphygmograph, and Gaertner's Fonometer. All three of these methods are considered valuable adjuncts in diagnosis. Of the fonometer he says that it may be used for comparisons of blood-pressure changes in the same individual with great benefit, while among different individuals much more caution must be observed. In all three instruments the details of technique must be mastered before results become really trustworthy.

We regret the absence of bibliographical references in this otherwise complete work. The illustrations are, on the whole, very good. This is less true of the colored plates than it is of the numerous photographs.

A TEXT-BOOK OF PATHOLOGY AND PATHOLOGICAL ANATOMY. By DR. HANS SCHMAUS. Translated from the Sixth German edition by A. E. Thayer, M. D. Lea Brothers & Co., Philadelphia and New York. 1902.

This volume is an excellent one for the student of medicine. It takes up general pathology in the first part of the work, and special pathology or pathological anatomy in the latter half. Possibly the latter half represents a part of pathology that is usually neglected in the standard English text-books. Too little attention is paid in this country to the study of gross pathology. Schmaus follows about the same plan that is pursued in the classic work of Orth on Pathological Anatomical Diagnosis. In fact, this portion of the book looks wonderfully like the lines of Orth. We can, therefore, recommend this book to the student of medicine.

A TEXT-BOOK OF CHEMISTRY. For Students of Medicine, Pharmacy and Dentistry. By EDW. CURTIS HILL. Philadelphia: F. A. Davis Co. 1903.

The construction of this book is instructive from the point of view that has governed it. In writing it the author saw always before him the material of pupils coming to hear his lectures with their, on the average, insufficient knowledge of the elementary principles of physics, chemistry and natrual sciences. Therefore the book nowhere presupposes anything, and everywhere the greatest simplicity and clearness obtains. The interest is heightened by many excursions into subjects that usually are not expatiated upon in such text-books, but which by their practical importance compel the attention of the reader for the chemical questions concerned with them. Perhaps it would be better if there would be no necessity for such books and that students ought to be advanced enough in

their general education not to need them, but since these conditions still obtain, the book will be well received. And it deserves it, as the text is throughout carefully written and free from superficialities and misstatements.

PROGRESSIVE MEDICINE. Fifth Annual Series. Volume II, June, 1903. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 427 pages, with 46 illustrations. Per volume, $2.50, by express prepaid. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers & Co., Publishers, Philadelphia and New York.

A glance through this volume will suffice to show the reader the fatuity of attempting to keep up with the progress of scientific medicine unless he can avail himself of such a work. The enormous amount of material which it contains is the more astonishing when it is realized that it represents only what is of real scientific and practical value in current medical literature. This volume contains the following contributions: Surgery of the Abdomen, Including Hernia, by William B. Coley, Gynecology, by John G. Clark; Diseases of the Blood and Ductless Glands, the Hemorrhagic Diseases, Metabolic Diseases, by Alfred Stengel; Ophthalmology, by Edward Jackson.

THE EXPECTANT MOTHER. A Treatise on the Care of the Expectant Mother during Pregnancy and Child-Birth and the Care of the Child from Birth to Puberty. By W. LEWIS HOWE, M. D. Pages 8–63. Size, small 12mo. Extra cloth. Price, 50 cents, net, delivered. Philadelphia: F. A. Davis Company, Publishers, 1914–16 Cherry street.

This little volume embodies in a concise and clear way all that a pregnant woman should know about the care of herself during pregnancy, and the care of herself and the child after birth. It will prove extremely useful if placed by the attending physician into the hands of all women pregnant for the first time.

THE MEDICAL AND SURGICAL USES OF ELECTRICITY. By A. D. ROCKWELL, A. M., M. D. New edition. E. B. Treat & Co., New York. 1903.

This book includes as well a discussion of the therapeutic value of the X-ray, the Finsen light, vibratory therapeutics and high frequency currents. The nutritional influence of electricity is now, as always, the central idea of the work. In consequence, the author extends the indications for its use to very wide limits. The first 75 pages are devoted to electro-physics, an elementary description of the fundamental facts concerning electric laws and appliances sufficient for ordinary work. The book is plentifully illustrated.

VERGLEICHENDE ANATOMIE DER WIRBELTHEIRE. By CARL GEGENBAUER. In two volumes, with 619 figures. Leipzig: Verlag von Wilhelm Engelman. 1898.

These two volumes, by the well-known anatomist, Gegenbauer, on "Comparative Anatomy of the Vertebrate Animals," represent a wealth of knowledge on this subject. The subject has been carefully classified and the anatomy of the several vertebrates carefully described. The illustrations assist the text in describing anatomical make of the different vertebrates. Some description is also given of the invertebrates. These two volumes give a fund of information

on this subject that could only otherwise be obtained by wading through literature of anatomy for many decades back. The original work of the author, of course, gives the stamp of excellence to the work. It can be recommended to those who desire information on the subject.

CELLULAR TOXINS OR THE CHEMICAL FACTORS IN THE CAUSATION OF DISEASE. By VICTOR C. VAUGHAN, M. D., LL. D., Professor of Hygiene and Physiological Chemistry in the University of Michigan, and FREDERICK G. NOVY, M. D., Sc. D., Junior Professor of Hygiene and Physiological Chemistry in the University of Michigan. Fourth edition; revised and enlarged. Philadelphia and New York: Lea Bros. & Company.

Vaughan and Novy—names inseparably connected with original work in the toxicology of the cell—have rewritten their original work under this new name. When their first edition came out, it was generally supposed that the chief factors in the causation of infectious diseases were the basic products of bacterial life. It is now supposed that the synthetic products of the cells themselves are in part responsible for the phenomena of infection and immunity. The volume gives the complete literature on the several infectious diseases—tetanus, anthrax, etc.—without, however, the bibliography of former editions, which has been omitted for want of space. The ptomains, the side-chain theory of immunity and the chemistry of the leucomains, are given in admirable form. This work of Vaughan and Novy certainly should be read by every up-to-date physician who wishes to obtain a clear conception of the modern idea of infection and immunity.

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